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NAVAL POSTGRADUATE SCHOOL
Monterey, California



THESIS

**AMERICAN CULTURE,
MILITARY SERVICES' CULTURES, AND
MILITARY STRATEGY**

by
Peter D. Haynes

December, 1998

Thesis Advisor:
Second Reader:

James J. Wirtz
Daniel J. Moran

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**AMERICAN CULTURE, MILITARY SERVICES' CULTURES, AND
MILITARY STRATEGY**

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B.A., University of Notre Dame, 1986

Submitted in partial fulfillment of the
requirements for the degree of

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ABSTRACT

The knowledge of one's culture is critical for success in statecraft and strategy. Yet, perhaps because it is so pervasive, the influence of one's own culture on strategy, defense preparation, and the conduct of war tends to escape notice. The influence of American culture on strategy, however, does not escape the notice of America's potential enemies. This thesis explores the American approach to strategy from a cultural perspective. It examines characteristics of American culture and the cultures of the four U.S. military services, which influence the U.S. strategy-making process. It explains how these characteristics formed and how they might influence American strategy. Unlike traditional explanations of the U.S. military cultures, such as Carl Builder's *The Masks of War*, this analysis examines the services' cultures from a more operational perspective. This thesis emphasizes the role the services' respective operating environments play in shaping their divergent perspectives on strategy, joint command structures, and doctrine. Cultural self-knowledge allows American strategists to recognize when aspects of American culture and the cultures of the services may make some strategies possible, desirable, or unimaginable. It allows American strategists to recognize when political leaders' goals and the services' strategies may be poorly matched.

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EXECUTIVE SUMMARY

Strategy is not made in purely rational terms. Rationality is inherently conditioned by one's culture. Culture consists of a set of general and ordered beliefs, attitudes, and assumptions that establish pervasive and long-standing preferences. Culture is a sociologically based, ideational framework that either presents decision-makers with a limited range of options or acts as a lens that alters the appearance and efficacy of different choices. These cultures shape perceptions and affect what individuals notice and how they interpret it. It screens out some parts of reality while magnifying others. Because it imposes a degree of restraint on behavior, culture may make it difficult for states and militaries to develop sensible and realistic approaches to the strategic problems that confront them.

This thesis explores the American approach to strategy from a cultural perspective. It examines characteristics of American culture and the cultures of the four U.S. military services. It argues that cultural self-knowledge is critical for success in statecraft and strategy. Perhaps because it is so pervasive, the influence of one's own culture on strategy, defense preparation, and the conduct of war tend to escape notice. The influence of American culture on strategy, however, does not escape the notice of America's potential enemies. Strategists who fail to question their assumptions cannot be expected to expose strategic vulnerabilities. A strategist lacking cultural self-knowledge is likely to recommend strategies that may not be plausibly attained through socially

acceptable means and methods. Because strategy is the relating of military power to political objectives, however, strategists cannot focus solely on their society's culture.

The cultures of a nation's military organizations are important because they have a pervasive impact on state behavior. Their long-standing preferences in strategies and weapons systems inherently limit the options of the political leaders. The rationality of the President's uniformed advisors is conditioned by their respective service cultures. A strategist who is unable to understand the sources of ideas that undergirds the national military organizations' deeply-rooted preferences in strategies may not recognize occasions when political leaders' goals and services' strategies may be poorly matched. A strategist lacking knowledge of the services' cultures will have a difficult time recognizing when culture make some undertakings possible, desirable, or unimaginable.

America's experiences during the seventeenth and eighteenth centuries shaped at least seven characteristics of American culture that influence the U.S. strategy-making process. Marked by physical and political survival during brutal wars, revolution, and national independence, this formative period saw the rise of cultural beliefs such as (a) the virtuous will ultimately triumph, (b) wars are to be brought to a successful and absolute conclusion, and (c) the United States is destined as the "city on the hill" providing a beacon of liberal democracy

The nineteenth and twentieth centuries saw the formation of at least eight characteristics of American culture. Characteristics such as Americans' highly technical, mechanical, and direct approach to war and strategy, inability to view war and strategy in a holistic manner, and ignorance of the need for strategy were formed amidst industrial

growth, technological change, the rise of the middle class and hortatory concepts such as nationalism and social Darwinism, and the preeminence of the United States.

The United States is likely to perform more effectively in large-scale wars and in wars where absolute victories can be obtained. Planning and execution of a D-Day-style landing, of nuclear deterrence, an intricate Single Integrated Operational Plan (SIOP), or of a large-scale conventional war with redundant paths to victory all exploit America's strengths. The United States may have difficulties in operations such as those conducted in Bosnia, Haiti, and Somalia that require subtlety in statecraft and strategy. Success in these kinds of operations requires a level knowledge of culture, languages, and history that was conspicuously absent in Americans' efforts in Vietnam. Adopting a direct approach in operations other than war such as conflicts in Bosnia, Haiti, and Somalia may well prove ineffectual. These kinds of conflict in particular require Americans' to acknowledge that the most sophisticated information technology and precision-guided weapons may not be enough to overcome the will and strategic skills of the enemy.

I. INTRODUCTION

A. SELF-KNOWLEDGE

Cultural self-knowledge is critical for success in statecraft and strategy. Yet, perhaps because it is so pervasive, the influence of one's own culture on strategy, defense preparation, and the conduct of war tends to escape notice. U.S. strategic vulnerabilities will not escape the notice of those intent on becoming the next General Giap. American cultural tendencies towards technology as a military panacea is creating just such a vulnerability in the notion of a revolution in military affairs (RMA) in information warfare (IW).

Cultural anthropologists note that American culture is a preponderantly monochronic culture. It considers challenges one at a time, in isolation, pragmatically.¹ American defense debates reflect this tendency. Defense issues such as détente, nuclear deterrence, ICBM basing, SDI, competitive strategies emerge, are debated, and then are inexorably replaced as American intellectuals move on to conquer new conceptual challenges. To recognize the faddish nature of an information-war RMA is, however, not to dismiss the content of the debate as all style and no substance. Few argue that war is not affected by technological change. The notion of an American RMA in information warfare is popular because it conforms to Americans' yearnings for a technical marvel that would win wars in a decisive and quick manner with little loss of American life and

¹ Colin S. Gray, "RMAs and the Dimensions of Strategy," *Joint Force Quarterly*, no. 17 (Autumn/Winter 1997-1998): 51. See Edward T. Hall, *Beyond Culture* (Garden City, N.Y.: Doubleday, 1976).

with comparatively low cost. The battleship, the Norden bombsight, the atomic bomb, and now the information-led RMA epitomize the search for technical answers to strategic questions. Indeed, the concept of an RMA is itself highly ethnocentric.

The premise of the RMA is that technology (and concomitant changes in organization and operational concepts) drives strategic history.² Historians and defense analysts have used the RMA to explain the triumphant victories of Napoleon. Using this concept, they have (painfully) made the point that Nazi Germany's early victories were a result of one if not several RMAs. The paradigm can explain how improvements in the internal combustion engine, aircraft design, the exploitation of radio and radar made possible revolutionary advancements in tank warfare, carrier aviation, amphibious warfare, and strategic bombing. But how can the paradigm contribute to an understanding of Wellington's victories with a nonrevolutionary British Army? How can it provide an understanding of why Germany eventually lost? How can it explain why the RMAs of the interwar period also helped shape one of the greatest protracted wars of attrition in history? How can it begin to explain why a technologically advanced and industrial nation like the United States was ignominiously defeated in Vietnam? The RMA paradigm fails because war and strategy are holistic enterprises.

War and strategy have a variety of dimensions such as ethics, society, geography, politics, political and military leadership, economics, logistics, training, operations, intelligence, and friction. Some, like technology and leadership, may be more important

² Colin S. Gray, "Nuclear Weapons and the Revolution in Military Affairs," in *The Absolute Weapon Revisited: Nuclear Arms and the Emerging International Order*, ed. T.V. Paul, Richard J. Harknett, and James J. Wirtz (Ann Arbor: University of Michigan Press, 1998), 111–113.

than others, but none can be taken for granted. Some, like technology, tend to change more than others, but that does not lessen the importance of elements such as culture that do not change, or change ever so slowly. Cultural yearnings towards technology obfuscates Americans' perspective on the totality of war and strategy. Such yearnings have engendered a narrow Jominian paradigm that comes perilously close to equating a theory of discrete destruction with a theory of success in war. As demonstrated in Vietnam, however, technological superiority may win battles but may not guarantee victory. As demonstrated in Vietnam, technical superiority risks overestimating one's own capabilities and underestimating the ability of one's opponents to see such vulnerabilities and short-circuit one's technological advantages. Americans' experiences in that war should have exposed the lack of a holistic approach to war and strategy. It should have demonstrated that military effectiveness may have little bearing on the outcome of the war. It should have institutionalized in the U.S. military an awareness of Americans' technological hubris. Unfortunately, it did neither of these. The assumption that the link between technology and military effectiveness and that conclusive strategic effect for victory is as self-evident as it is direct has survived the deaths of fifty-eight thousand Americans. Its resurgence since the Gulf War is indicative of the strength of this cultural tendency and its influence on American strategy.

This thesis seeks answers to three questions: What characteristics of American culture and the cultures of the U.S. military services influence the U.S. strategy-making process? How did these characteristics form? How might they influence American strategy? These are relevant questions, for the resurgence of the sin of unfettered

technological hubris is indicative of the lack of self-knowledge among American strategists. As Sun Tzu advised, self-knowledge is critical for success in strategy.³ A strategist who fails to interrogate assumptions cannot be expected to expose strategic vulnerabilities such as Americans' reliance on technology and machines as solutions for the problems of war. A strategist lacking cultural self-knowledge is likely to recommend strategies that may not be plausibly attained through socially acceptable means and methods. A strategist lacking cultural self-knowledge cannot be expected to take advantage of characteristics that improve the nation's ability to wage war or develop strategy. Because strategy is the relating of military power to political objectives, however, strategists cannot focus solely on their society's culture.

The cultures of a nation's military organizations are important because they have a pervasive impact on state behavior. Their long-standing preferences in strategies and weapons systems inherently limit the options of the political leaders. The rationality of the President's uniformed advisors is conditioned by their respective service cultures. A strategist who is unable to understand the sources of ideas that undergird the nation's military organizations' deeply-rooted preferences in strategies may not recognize occasions when political leaders' goals and services' strategies may be poorly matched. A strategist lacking knowledge of the services' cultures will have a difficult time recognizing when culture makes some undertakings possible, desirable, or unimaginable.

³ "Know the enemy and know yourself; in a hundred battles you will never be in peril." Sun Tzu, *The Art of War*, trans. Samuel B. Griffith (London: Oxford University Press, 1963), 84.

A strategist lacking cultural self-knowledge will not be able to understand that unquantifiable factors such as culture, history, and politics are as important in the calculus of war and strategy as those more quantifiable elements that serve the interests of those championing the latest fad. To be sure, self-knowledge is not a magic elixir. Complete cultural knowledge of oneself and of the enemy cannot guarantee victory any more than fielding advanced information systems. But strategists endowed with a sense of cultural self-knowledge already know that.

B. CULTURE

Strategy is not made in a vacuum in purely rational terms.⁴ Rationality is inherently conditioned by one's culture. Shaped by geopolitical, historical, economic, and other influences, culture consists of a set of general and ordered beliefs, attitudes, values, and assumptions that establish long-standing preferences. Culture is a sociologically (not genetically) based ideational framework that either presents decision-makers with a limited range of options or acts as a lens that alters the appearance and efficacy of different choices.⁵ These cultures shape perceptions and affect what individuals notice and how they interpret it. It screens out some parts of reality while magnifying others. To paraphrase Alexander George, culture influences how incoming information is assessed. It influences how the situation is defined. It shapes the identification and

⁴ Williamson Murray and Mark Grimsley, "Introduction: On Strategy," in *The Making of Strategy: Rulers, States, and War*, ed. Williamson Murray, MacGregor Knox, and Alvin Bernstein (Cambridge: Cambridge University Press, 1994), 3.

⁵ For Clifford Geertz and other anthropologists, culture involves genetics as well as sociology. See Clifford Geertz, *The Interpretation of Cultures* (New York: Basic Books, 1973), 89.

evaluation of options as well as choice.⁶ Because it imposes a degree of restraint on behavior, culture may make it difficult for states and militaries to develop sensible and realistic approaches to the strategic problems that confront them.

In theoretical terms, the relationship between culture and behavior is not one of extreme determinism. Many countries with accreted cultures have in modern times chosen not to behave according to their alleged tendencies. During the First World War, for example, Britain fielded a continental-sized army and waged anything but a limited war. In 1947, the United States chose to join NATO and subsequently organized and maintained a balance of power system for fifty years. One cannot conclude, however, that culture will not have much effect on behavior at all—culture has a significant behavioral effect. In a broad, societal sense, it influences the context in which policy and strategy choices are debated. It influences the decision-makers' ability to understand the range of options and to perceive which are more viable. Taking the realist edifice as a target, those belonging to one culture think and act differently than those of another when faced with similar circumstances and choices. The following anecdote by Victor Suvorov, a defector who commanded a Soviet Army motorized-rifle company during the 1968 invasion of Czechoslovakia, illustrates how Soviet/Russian culture shapes its military's behavior:

When I lecture to Western officers on tactics in the Soviet Army, I often close my talk by putting a question to them—always the same one—in order to be sure that they have understood me correctly. The question is trivial and elementary. Three Soviet motor-rifle companies are on the move in the same sector. The first has come under murderous fire and its attack

⁶ Alexander George, "The Causal Nexus between Cognitive Beliefs and Decision-Making Behavior: The 'Operational Code' Belief System," in *Psychological Models in International Politics*, ed. Laurence S. Falkowski (Boulder, Colo.: Westview, 1979), 113.

has crumbled, the second is advancing slowly, with heavy losses, the third has suffered an enemy counter-attack and, having lost all its command personnel, is retreating. The commander of the regiment to which these companies belong has three tank companies and three artillery batteries in reserve.... "You are to guess," I say, "what steps a Soviet regimental commander would take, not a Western one but a Soviet, a Soviet, a Soviet one." I have yet to receive the correct reply.⁷

Those involved in the deadly business of war and strategy need an understanding that Americans' cultural sensitivities towards casualties make U.S. commanders believe that the Soviets will reinforce the first or the third company. They need to understand why, in this situation, there is only one answer: "From the platoon level to that of the Supreme Commander," Suvorov continued, "all would agree that there is only one possible solution: all three tank companies and all three artillery batteries must be used to strengthen the company which is moving ahead, however slowly."⁸ Strategists cannot assume that members of other cultures will act the same. The relationship between culture and behavior applies to military organizations as well. Indeed, the relationship may be even more direct than that of nations.

Since organizations with rapid turnover such as sororities and fraternities are able to maintain their cultures, it should not be surprising that military organizations, with their long-term membership and powerful assimilation mechanisms, develop strong and enduring cultures.⁹ The emphasis on ceremony and tradition and the development of a

⁷ Victor Suvorov, *Inside the Soviet Army*, forward by General Sir John Hackett (New York: Macmillan, 1982), vii-viii.

⁸ Ibid.

⁹ Elizabeth Kier, *Imagining War: French and British Military Doctrine Between the Wars* (Princeton: Princeton University Press, 1997), 28.

common language and *esprit de corps* testify to the strength of a service's culture. Militaries do not hire people with outside experience. Those desiring to be part of a military organization must first pass the organization's selection process. They are then trained and educated by the same organization during which the novitiates begin to absorb the service's values and beliefs. Service members subsequently spend the majority of their careers in the same organization. Members who are more willing to conform to the prevailing standards of their superiors tend to be rewarded with continued promotion. Those who dismiss or question such standards will not be as trusted. Members train together, at times they sleep in the same area, and they also fight together.

Fighting is a group exercise; combat requires decisions to be made, understood, accepted, and effected in a rapid and instinctual fashion. Collective understanding, or a culture, makes this possible. A shared framework decreases uncertainty in war and increases the ability of its members to respond quickly. To develop a shared framework, militaries must inculcate values and beliefs such as integrity, instant obedience, trust, taking responsibility for one's actions, and loyalty to the organization. A military organization must stamp out to some extent societal values that might threaten the group's integrity such as fairness, equality, independence, and the rights of an individual.¹⁰ A military organization's culture is largely functional. Efforts to develop a strong culture also contribute to the enduring quality of military cultures.

¹⁰ As Elizabeth Kier noted: "The military's powerful assimilation process can displace the influence of the civilian society." Elizabeth Kier, "Culture and Military Doctrine: France between the Wars," *International Security* 19, no. 4 (Spring 1995): 71.

Because they act as a template for organizational cohesiveness, much the same way a paradigm can shape intellectual thought,¹¹ military cultures—shaped primarily by their historical experiences, respective operating environments, and aspects of their nation's culture—once established tend to endure. They endure through all but the most traumatic of experiences and even then they may remain intact. They endure through changes in leadership and persist even when domestic and international circumstances, technology, or individual preferences seem to indicate they should change. New weapons and concepts are accommodated within the structure of existing, time-tested, and preferably battle-experienced doctrine and forces. Types of warfare that are incompatible with the dominant culture are accepted only in cases of extreme danger to the state when political leaders are apt to intervene and reorient the service's priorities.

The concept of "culture" is inevitably a loose one that defies rigor and precision and remains open to endless reinterpretation.¹² The determined researcher usually has few problems finding impressive *ex post facto* empirical support to substantiate his claims. Despite the dangers of crude reductionism, insensitivity to cultural changes, and ascribing causative power to distinctive, yet non-relevant cultural characteristics, the cultural paradigm remains an indispensable guide to the strategist's decisions. It guides how the

¹¹ See Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 2nd ed., enl. (Chicago: University of Chicago Press, 1970). For Kuhn, the concept of a paradigm had several dimensions which allowed several manifold applications. Essentially, however, it meant a particular approach to problem-solving that was common throughout an intellectual field. Put simply, a paradigm defines identity.

¹² N. J. Rengger, "Culture, Society, and Order in World Politics," in *Dilemmas of World Politics: International Issues in a Changing World*, John Baylis and N.J. Rengger (Oxford, England: Clarendon, 1992), 85.

strategist interprets the facts and lends potency to one's intuition. Since rationality is inherently conditioned by culture, the study of culture is an inseparable part of strategy.

C. STRATEGY

The "naturall condition" of mankind as described by Thomas Hobbes in *Leviathan* has not changed much in the intervening years. Despite scholarly enthusiasm, the addition of more democratic governments to an increasingly economically interdependent world has yet to awaken a somnambulant Kantian "common Power."¹³ Consequently, the first duty of government remains to protect the nation from the consequences of war. At a minimum, every state desires to minimize the possibility of domination by another state. No matter how modest, virtually every government in the world has a defense structure designed to forestall this possibility.

Historically, the *ultima ratio* of a state, the most relevant means to deliver power in extreme circumstances is the controlled use of violence. The relation of power to political purpose is critical to the existence of a country. From this, Carl von Clausewitz concluded, "War is simply a continuation of political intercourse, with the addition of other means."¹⁴ Strategy—the relating of power to political purpose and vice versa—is therefore an inescapable reality of life in a Hobbesian world. Strategy resides in the realm

¹³ "Here it is manifest, that during the time men live without a common Power to keep them in awe, they are in that condition is called Warre; and such a warre, as is of every man, against every man." Thomas Hobbes, *Leviathan*, ed. Richard Tuck (Cambridge: Cambridge University Press, 1991; first pub. 1651), 88.

¹⁴ Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976; first pub. 1832), 605.

of necessity rather than of choice; the only alternative to good strategic performance is fair or poor strategic performance, not no strategic performance.¹⁵ Ultimately, the alternative to good strategy is national extinction.

D. OVERVIEW

Chapter II argues that Americans' experiences during the seventeenth and eighteenth centuries shaped at least seven characteristics of American culture that influence the U.S. strategy-making process. Marked by physical and political survival during brutal wars, revolution, and national independence, this formative period saw the rise of cultural beliefs such as that the virtuous will ultimately triumph, that wars are to be brought to a successful and absolute conclusion, and that the United States is destined as the "city on the hill" providing a beacon of liberal democracy

Chapter III examines eight characteristics of American culture formed during the nineteenth and twentieth centuries that influence American strategy. This chapter explains how characteristics such as Americans' highly technical, mechanical, and direct approach to war and strategy, inability to view war and strategy in a holistic manner, and ignorance of the need for strategy were formed amidst industrial growth, technological change, the rise of the middle class and such hortatory concepts as nationalism and social Darwinism, and the preeminence of the United States.

Chapters IV, V, VI, and VII addresses cultural aspects of the U.S. Army, Navy, Air Force, and Marine Corps, respectively. Their deeply-rooted cultures have been

¹⁵ Colin S. Gray, "On Strategic Performance," *Joint Force Quarterly*, no. 10 (Winter 1995-96):

shaped by bloody battles and attritional campaigns, fiscal constraints, poisonous inter-service relations (by international comparison), societal disinterest, and institutional identity crises caused by changes in technology and in the international security environment. The services also have been profoundly shaped by the character of their respective operational environments. Unlike traditional explanations of the U.S. military cultures, such as Carl Builder's *The Masks of War*, that undervalues the operational mind-set that undergirds those cultures,¹⁶ this analysis examines the services' cultures from a more operational perspective. This thesis emphasizes the role the services' respective operating environment plays in shaping their divergent views on strategy and joint command structures and operational doctrine. Examining how their respective operating environment shapes their divergent perspectives explains why they differ better than the common matrix-like approach.

Chapter IV argues that there are seven Army cultural characteristics that influence the American strategy-making process. Some aspects, such as a direct approach to strategy, obedience to the people and the government, and reluctance to commit to large-scale wars without the support of society, are a result of American cultural-historical factors. Army officers' reluctance to commit to new concepts, their sense of teamwork,

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¹⁶ Such literature includes Carl H. Builder, *The Masks of War: American Military Styles in Strategy and Analysis* (Baltimore: Johns Hopkins University Press, 1989) and James M. Smith, "Service Cultures, Joint Cultures, and the US Military," *Airman-Scholar* 4, no. 1 (Winter 1998): 3-17. Recent studies that have examined the services from an operational perspective include: Thomas E. Ricks, *Making the Corps* (New York: Scribner, 1997); James M. Smith, *USAF Culture and Cohesion: Building an Air and Space Force for the 21st Century*, USAF Institute for National Security Studies Occasional Paper 19 (Colorado Springs, Colo.: INSS, 1998); and Roger Thompson, *Brown Shoes, Black Shoes and Felt Slippers: Parochialism and the Evolution of the Post-War U.S. Navy*, Center for Naval Warfare Studies

and a comparatively balanced view of the role technology plays in strategy stem from their experience of waging war on the land.

Chapter V argues that the lack of Americans' firsthand knowledge about the sea results in a broad ignorance in society and in the military about the Navy. It argues that there are at least five Navy cultural characteristics which are formed by the exigencies of operating and fighting at sea. Characteristics such as the belief that it alone understands how to plan and execute naval strategy and an institutional reluctance to centralize command structures and develop detailed operational doctrine make it difficult for the Navy to integrate itself into a more interdependent military.

Chapter VI examines eight characteristics of Air Force culture. It explains why the Air Force has problems that are more reflective of large corporations than its surface-based brethren. It argues that some aspects, such as a high degree of paranoia about its survival and a narrow theoretical view of strategy, are based on its history while others, like being enamored with technology and a reluctance to develop detailed operational doctrine, are as a result of a unique perspective formed by air warfare.

Chapter VII examines five aspects of Marine Corps culture that influence American strategy. The culture of Marines is the richest culture in the U.S. military: formalistic, isolated, elitist, with a deep anchor in their own history and mythology. This chapter finds that Marines share some cultural similarities with the Army by virtue of the requirements of operating on land. It also finds that the central element in Marine culture

is its abiding sense of vulnerability as an institution. Consequently, the Marine Corps is continually exploring the future security environment to determine which missions and roles will be important to the United States in the future. It then adopts itself to missions the other services do not want or cannot see, such as amphibious warfare or fighting America's small wars.

Finally, the conclusion will review the arguments on the need for cultural self-knowledge and how cultural tendencies might affect the development of strategy in the United States. It examines how one might embark on a line of inquiry into the qualification of differences between service cultures and how one might use the services' cultural characteristics in a constructive manner. It explores how one might investigate the manner and circumstances in which service cultures change and how one might go about changing a service's culture. Finally, it argues that strategy is a matter of vital importance to the United States.

II. EARLY AMERICA

The seventeenth and eighteenth centuries represent not merely an age of colonialism, but the formative period of American history. It was a period marked by violence and ruthless wars amidst a struggle for political if not physical survival up until the War of 1812 (1812–1815). It was a time characterized by a continuous level of perceived anxiety and vulnerability without the luxury of a clear definition of the threat. It was an age when European wars fought in the New World caused death and suffering among settlers who were powerless to prevent the conflicts. These centuries presented Americans with serious military problems which gave rise to considerable anxiety and shaped ways of thinking about peace and war.

Seventeenth century history reveals Europe to be astonishingly violent and ideologically polarized. The Thirty Years War (1618–1648) proved such a frightful experience that European rulers saw the need to erect a balance-of-power system to maintain the status quo of governments and nations, establish large, professional armies, and institute standards of political and military conduct intended to mitigate the effects of wide-scale war on the general populace. The English civil war (1642–1649) and the English colonization of Ireland (1660s and 1670s) were particularly notable for their brutality amidst violent religious and political conflict. Albeit on a smaller scale, seventeenth century colonial life was just as violent. As John Shy noted:

The early history of any seventeenth-century colony, even as late as the settlement of Pennsylvania and South Carolina, reveals that these were dangerous times, with violent people and tough leaders who felt the dangers keenly and were ready to use violence themselves.... [Their

leaders] knew very well that their ventures in the Western Hemisphere were semi-military, semi-piratical intrusions on the established empire of Spain and the antecedent colonial claims of France.¹

The likelihood of violence was consequently not far from the thoughts of settlers, who were not hesitant to use force to secure their objectives. The danger, however, did not materialize from the Spanish or the French, but from an unexpected quarter.

The colonists had placed considerable hopes in converting the native Americans into Christians. The relationship between the two sides, however, became marked not by conversion and worship but by English condescension and incredibly barbaric warfare. The isolated and vulnerable English colonists began waging war with tribes that were more militarily formidable than those the colonies' leaders had encountered in Ireland. The advantages of having a larger and more prosperous population did not give the English settlers a quick victory in their intermittent conflicts with the Native Americans. Moreover, the English colonies were not a tightly-knit homogenous society. They were a group of distinct societies separated by distance as well as beliefs. Only when they were forced to cooperate during the French and Indian War (1755–1763) did the colonies start to overcome suspicions of each other and become dimly aware of their status as "Americans."

¹ John Shy, "The American Military Experience: History and Learning," *The Journal of Interdisciplinary History* 1, no. 2 (Winter 1971): 212. Americans tend to forget that many of the expeditions' leaders were veterans of Irish pacification. It is not surprising then that English colonization in Ireland and in America were closely related in method, problems, and personnel. As a colonizer in Ireland and later in the America, for example, Sir Humphrey Gilbert tolerated no opposition from those natives that failed to accept their subservient roles and chose instead to rebel. In Ireland, Gilbert was known to have lined the path to his tent with the severed heads of Irish peasants.

The French and Indian War was the last of four major wars (totaling thirty-seven years of conflict) which were fought between at least six European powers (Austria, Holland, France, Spain, Prussia, and Britain) and which spilled over onto American soil. Between 1689 to 1763, settlers and Native Americans were constantly enmeshed in imperial European politics acted out in the forests and on the plains of North America. During the French and Indian War, the relative weakness of the more thinly populated French settlements and costliness and inefficiency of transporting regular troops forced French officials to become more dependent on Indian allies than the British.² A dependence upon such allies, however, meant that both the French and British became dependent on the tribes' style of guerilla warfare waged with unremitting brutality.³ James Fenimore Cooper captured Americans' fear and anxiety during this war, who were made vulnerable by their isolation along a wide and open frontier.

The alarmed colonists believed that the yells of the savages mingled with every fitful gust of wind that issued from the interminable forests of the west. The terrific character of their merciless enemies increased immeasurably the natural horrors of warfare. Numberless recent massacres were still vivid in their recollections; nor was there any ear in the provinces so deaf as not to have drunk in with avidity the narrative of some fearful tale of midnight murder, in which the natives of the forests were the principal and barbarous actors. As the credulous and excited traveler related the hazardous chances of the wilderness, the blood of the timid curdled with terror, and mothers cast anxious glances even at those children which slumbered within the security of the largest towns. In short, the magnifying influence of fear began to set at naught the calculations of

² Shy, 213.

³ John Keegan noted that: "Intertribal warfare was a fact of American Indian life long before the coming of the Europeans, as in so many 'hard primitive' societies; Indians fought for honour, revenge, excitement, and in order to replace the casualties of war by seizing and 'adopting' captives from the enemy." John Keegan, *Fields of Battle: The Wars for North America* (New York: Vintage Books, 1995), 103.

reason, and to render those who should have remembered their manhood, the slaves of the basest of passions.⁴

One can understand how such experiences triggered powerful emotions that provided a rich milieu for incipient beliefs about war and strategy to take root and grow. Experiences in the Revolutionary War (1775–1783) would provide even more fertile ground for such beliefs to flourish.

The colonists' cooperation with the British during the French and Indian War was unprecedented. The colonists supplied almost twenty thousand troops and over £2 million to the war effort. In one year, the colony of Massachusetts enlisted five thousand personnel out of a male population of about fifty thousand.⁵ The colonists contributed to making North America perhaps the most extensively fortified zone in the world.⁶ As a result of the British victory, which saw the French driven out from mainland North America, the colonists believed themselves to be a franchised member of the empire.

Because of the enormous debt accumulated in waging the French and Indian War (over half of the national budget went to pay the interest on it), the British attempted to reassert the authority of Parliament in taxing the well-established representative provincial assemblies. What began as a gentrified tax rebellion was transformed into a mass movement in which the people became intimately involved in securing and shaping their nation's destiny. Indeed, many forget that, proportionate to the population, a

⁴ James Fenimore Cooper, *The Last of the Mohicans* (New York: Barnes & Noble, 1993; first pub. 1826), 4.

⁵ Robert D. Divine, T.H. Breen, George M. Fredrickson, and R. Hal Williams, *American Past and Present*, 4th ed. (New York: HarperCollins, 1995), 127. This was a commitment which meant that the war was being waged on a scale comparable to the world wars.

⁶ Keegan, 103.

greater percentage of Americans died during the Revolution than in any other war in American history with the exception of the Civil War (1861–1865). The experience of the Revolutionary War consequently represented another traumatic period. The experience of victory over a powerful country brought proof of Americans' beliefs that the virtuous would ultimately triumph, that wars are to be brought to a successful and absolute conclusion, and that the United States is destined as the "city on the hill," providing a beacon of liberal democracy.

These centuries were a formative period in which American beliefs on war and strategy were formed and mythologized. In the behavior of these early Americans, during this time, there were at least seven enduring and interrelated characteristics of American culture.

First, the Americans were wont to demand absolute solutions to their military problems. They were strong in numbers, yet vulnerable. The colonists were angered and frightened by repeated and brutal attacks that materialized seemingly out of nowhere. They neither were parties to the causes of European wars fought in the New World nor were they able to prevent them.⁷ Consequently, they made extreme proposals for solutions to the military problems. Such problems were an irritant that threatened what they believed was their right to live life free of mental angst caused by outside interference. Such problems were to be extirpated as quickly as possible to allow a return to normalcy. There was, understandably, little patience for limited political solutions or

⁷ Shy, 214.

negotiated settlements. For settlers, war was not a continuation of politics by other means.⁸ It was not a cerebral and detached affair—it was a visceral struggle for survival.

The American tendency for absolutism originated in their early experiences in war. By 1763, as Shy notes, “All the French and Spanish power on the North American continent east of the Mississippi was actually ‘extirpated’.”⁹ Indeed, it is quite remarkable that in almost every instance—including the early, formative French and Indian War which saw the French driven from the mainland of North America, the Revolutionary War, and the War of 1812—Americans realized an “absolute” solution to their wars. While it was not an unreasonable response to difficult security problems, the cultural tendency to want absolute solutions was and remains unrealistic in terms of normal European and Middle Eastern relations in which limited solutions and negotiated settlements are common.¹⁰ Since the nineteenth century, wars more often than not have been characterized by pernicious inconclusiveness rather than by absolute solutions.¹¹ One might be tempted to argue that if the United States had not been compelled to honor the balance-of-power system in the Middle East, this cultural tendency might have impelled U.S. troops to drive on towards Baghdad.

Second, the early Americans turned wars into crusades. Because of their experiences living in England, they were contemptuous of the idea of professional,

⁸ Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976; first pub. 1832), 605.

⁹ Shy, 215.

¹⁰ Ibid.

¹¹ Rick Atkinson, *Crusade: The Untold Story of the Persian Gulf War* (Boston: Houghton Mifflin, 1993), 300.

standing armies (though the settlers probably could not even have raised one given the economic state of early America). During the sporadic calls to arms, local communities were inclined to take action only in retaliation for attacks that they believed—rightly or wrongly—immediately threatened their existence. However, public support for action would invariably increase if such attacks were believed to have been perpetrated with extreme violence, prejudice, asocial, or criminal behavior.

Historically, whether soldiers on the Rio Grande, passengers on the *Lusitania*, or sailors on a battleship in Havana or Pearl Harbor, once Americans have been attacked and killed, arguments about the causes, the political objectives of war, and the means have become secondary considerations.¹² Thus, the call to arms has been couched not in political terms, but in religious and moral overtones that have been more readily understood and accepted by communities whose *raison d'être* have always included the establishment of a society that stood as a beacon of righteousness. This tendency was evident in the Fall of 1990 when President Bush characterized Saddam Hussein as the moral equivalent of Adolf Hitler. An administration that had insisted on turning a military campaign based on national interests into a moral crusade became trapped by this tendency; Bush had a difficult time explaining to Americans how the United States could leave such a man in power.

Third, when the early Americans resorted to force, it tended to be belated but massive. The following characteristics of the United States suggest that it is not well-

¹² Shy, 217.

suited to agile military force: Americans' disinclination to wage war against all but the most immediate threats; their resistance to committing to long-term conflicts because of the reliance on militias; their belief that war is abnormal and is instigated only by evil men and causes; and their belief that military problems were to be extirpated in a decisive manner, without resorting to limited political solutions or negotiated settlements.¹³

Moreover, as Colin Gray noted:

Attempts to wage war without the blessing of American society are likely to fail. For any enterprise lacking obvious life or death implications, the government...can expect public support only if the military operation is brief, successful, and attended by few casualties.¹⁴

Following the call to arms, however, Americans have always expected a decisive victory. Indeed, the cycle of the early Americans' early experiences in war—early defeats, societal reaction, military recovery, perseverance, and ultimate victory—came to be accepted as their wartime *modus operandi*.

Fourth, the early Americans came to confuse their successes in war with virtuousness. Beginning with the French and Indian War, each new conflict saw their nascent community sink to the depths of despair only to gather its strength and seize remarkable victories. Notwithstanding other, more fundamental, reasons for the withdrawal of European forces (such as balance-of-power politics in Europe or factors internal to the enemy), each victory apparently offered proof that good causes triumph and that American ideas on economics and governance were superior. From the beginning

¹³ Colin S. Gray, "Strategy in the Nuclear Age: The United States, 1945–1991," in *The Making of Strategy: Rulers, States, and War*, ed. Williamson Murray, MacGregor Knox, and Alvin Bernstein (Cambridge: Cambridge University Press, 1994), 596.

¹⁴ Ibid.

of the republic, Americans came to be deeply convinced that the world is destined to be governed by the guiding light of American liberal democracy. The result of these early victories, therefore, was the illusion that America was all important.¹⁵

Fifth, as a consequence of their belief that America is a land of new beginnings and infinite possibilities, the ever-forward looking Americans are largely indifferent to history and have a poor sense of the value of history.¹⁶ This indifference allows Americans to avoid the behavior of societies that possess deeply-rooted memories of political and cultural strife. This also prevents them from seeing the past as a guide to the future. Alfred Thayer Mahan remarked that: "Historical instances, by their concrete force, are worth reams of dissertation." Is not "history...the experience of others, recorded for our use"?¹⁷

¹⁵ Shy, 216. Writing in 1971, Shy noted: "Disappointment and disgust, as much as moral and political disapproval, have provided the emotional fuel for antiwar action. Even the outrage of the young indicates how far they were taught to expect a smoother, cleaner American military performance [in Vietnam] and how little prepared they were to face the prospect of failure.... Many...think that they and the nation will ride it out, that the Ten Years War is only a bad dream which will soon be over and forgotten, that the social and psychic damage can be limited, and that other issues, other dangers are really more urgent. Perhaps so; all gloomy prediction is mere speculation. Nothing, however, in the historical record gives much support to their modest optimism. On the contrary, the American military past, if I have interpreted correctly, warns us that the effects of confessed failure are likely to be protracted, unpredictable, and severe." Shy, 228.

¹⁶ This is not to say that American idealism and optimism are themselves astrategic in nature. A French veteran of the Second World War wrote: "In 1950 France was in ruins. I saw only a world marked by war, and by fear. I believed that it was not finished, that there would be a next war. I did not think it would be possible to build a life, to have a family. Then came [a] group of Americans, attractive, idealistic, optimistic, protected, believing and acting as though anything was possible. It was a transforming experience for me." Stephen E. Ambrose, *Citizen Soldiers: The U.S. Army from the Normandy Beaches to the Bulge to the Surrender of Germany, June 7, 1944-May 7, 1945* (New York: Simon and Schuster, 1997), 487.

¹⁷ Alfred Thayer Mahan, *Naval Strategy, Compared and Contrasted with the Principles and Practice of Military Operations on Land* (Boston: Little, Brown, 1919; first pub. 1911), p. 161 and p. 9; quoted in Colin S. Gray, *War, Peace, and Victory: Strategy and Stratecraft for the Next Century* (New York: Simon and Schuster, 1990), 15.

Unfortunately, the study of history in the United States is not popular. The presence of history in the curricula of the nation's educational institutions is eroding. Whether the industrial, the atomic, or the information age, Americans' cultural yearnings towards technological panaceas has resulted in an increase in technical training at the expense of an education in history or in the social sciences.¹⁸ Americans' ability to see the experiences of the past as a guide to the future has seriously atrophied. Americans will find new ways of committing the oldest of strategic errors. Americans will continue to confront a problem on its own merits, solve it in the spirit of a problem-solver, and then move on to the next challenge.

American prophets of information warfare may have an excellent case to advance. Yet some education in history might alert them that a heavy emphasis on engineering and hard science is not conducive to innovation.¹⁹ It may alert them that what the United States needed at Pearl Harbor was not more information; it needed a deeper understanding of the political and cultural context of war.²⁰ An education in history that reaches only as

¹⁸ Unfortunately, the military has decided to follow suit. As the then president of the National Defense University noted: "The current revolutionary force puts a higher premium on basic and engineering sciences.... In short, the center of mass at the war colleges must move toward more technical academic disciplines." Ervin J. Rokke, "Military Education for the New Age," *Joint Force Quarterly*, no. 9 (Autumn 1995): 22. For another example of such thinking, see Center for Strategic and International Studies, A Report of the CSIS Study Group on Professional Military Education, *Professional Military Education: An Asset for Peace and Progress*. (Washington, D.C.: CSIS, 1997). For a spirited review of the report, see Williamson Murray, "How Not to Advance Professional Military Education," *Strategic Review* (Summer 1997): 73-77.

¹⁹ See Williamson Murray, "Innovation: Past and Future," *Joint Force Quarterly*, no. 12 (Summer 1996): 51-60. Murray noted that: "The services must encourage greater familiarity with nonlinear analysis.... While some suggest that the military needs more engineers to encourage nonlinear thinking, they are wrong. In fact, what the services lack are biologists, mathematicians, and historians." Murray, "Innovation," 60.

²⁰ See Williamson Murray, "Clausewitz Out, Computer In: Military Culture and Technological Hubris," *The National Interest*, no. 48 (Summer 1997): 57-64.

far back as the Vietnam War might even be sufficient to Americans to alert them to the boundaries of their claims and the dangers of unrestrained technological hubris.

Sixth, because wars in the early, expansive North America were characterized by dispersed forts and settlements, defenseless borders, and quasi-guerrilla warfare, early Americans lacked a clear definition of the threat they faced. Without the benefit of a clear threat, the vulnerable and isolated Americans worried themselves into a constant state of military insecurity. In time, as Shy observed:

There was a growing accumulation of potential military power, with no apparent economic or demographic limits on how much military power it might be possible to accumulate. The limits of American power were thus not seen to be intrinsic...but rather were to be set by the political process, which presumably would establish them on the basis of some strategic calculation. But without clearly defined dangers, such calculations could not be made, at least convincingly, and any politically established level of military power inevitably seemed arbitrary.²¹

The perception of military insecurity bereft of a self-evident threat, and the accumulation of military power without any apparent limits, usually results in a kind of strategic indeterminacy and a concomitant feast-or-famine cycle of defense preparation.²² As a consequence, new strategic concepts and concomitant weapons systems are unlikely to be provided unless they can catch a wave of American insecurity and its permissive budgetary climate.

Seventh, early American society did not regard its professional military establishment as an important state institution. It was widely believed, rather, that the

²¹ Shy, 211.

²² Gray, "Strategy in the Nuclear Age," 589.

nation was able to help expel the French from North America and revolt against the wishes of the British not because of the nation's professional soldiers, but because of its citizen-soldiers. Consequently, there was a tendency to view the professional military as unnecessary and ineffectual.²³ The perception was that when it came to war, the nation could roll up its sleeves and solve the problem with limited guidance from the military. Left to the vagaries of fickle administrations and Congressional assemblies that would just as soon not deal with intractable international problems until a threat became evident, the U.S. military services formulated theories according to their own doctrine and their own view of the nation's interests.²⁴

In terms of the number and degree of cultural influences that exert significant pressures on the U.S. strategy-making process, the seventeenth and eighteenth centuries were perhaps the most formative. Many astrategic tendencies such as wanting absolute solutions, turning wars into crusades, and visions of an omnipotent America were formed. Many of the cultural tendencies borne of this period involve the political aspects of strategy. This period shaped how Americans wars were to begin and end. During this period, the relationship between society, government, and the military was formed.

²³ Shy, 216.

²⁴ Given the lack of societal interest and fiscal paucity, the appearance of what seem to be self-serving service theories is understandable since the emphasis has been on catching the imagination of the electorate and legislators rather than on combating the security threat effectively.

III. MODERN AMERICA

The nineteenth and twentieth centuries saw America's coming of age. It was a period marked by civil war, the conquering of the frontier, massive industrialization, and world wars. It was a time characterized less by external threats and more by overcoming problems befitting a nation growing in size and industrial capacity. These centuries did not fundamentally alter how Americans thought about peace and war. The tendencies formed during this period are more about the means, not the political objectives of American strategy.

Americans moved West for many reasons. Some wanted adventure. Some sought their fortune among the growing number of mines, advancing railroads, and ranches. Others wanted to escape the factories of the East. A few moved to Utah to escape religious persecution. Most simply wanted to better their lives. Whatever their reasons, the experience of a moving frontier had a lasting influence on American strategic culture. This period shaped how Americans approach problems. It shaped how Americans approach war and strategy. Amidst this formative experience, Americans experienced another in the coming of the industrial age.

While the frontier was being conquered, the United States was fast becoming an industrial society. At the start of the Civil War, the country lagged well behind industrializing nations such as Great Britain, France, and Germany. By the turn of the century, it had vaulted far ahead of these European competitors. American manufacturing output exceeded the combined output of its European rivals. During this time, cities grew

and farm production rose. Developments in manufacturing, transportation and communications changed American society. The typewriter, Elisha Otis's new elevator, and the telephone were the products of an ever-improving and growing civilization.¹ Advanced technology had captured the imagination of American society. Upon viewing paintings, sculptures, and an enormous, four-story steam engine at the Centennial Exposition in 1876, novelist William Dean Howells preferred the engine. "It is in these things of iron and steel," he remarked, "that the national genius most freely speaks."²

While they have always been enamoured with technology, Americans' fascination with military technology grew immensely at the turn of the century. Fueled by a popular press that presented battleships as the most technologically advanced product of the machine age, it was an era of unbridled enthusiasms of citizens privileged to participate in the advancement of their country amidst a backdrop of great power nationalism, imperialism, and social Darwinism. Technology had delivered powerful warships as symbols of national pride which promised to deliver decisive, strategic victories.

The wars of modern American did a great deal to strengthen established facets of the way Americans think about war. With their faith and competence in technology, managerial and problem-solving skills, insularity, and unmatched industrial capacity, Americans were able to substitute both sheer quantities of assets and the power of machines for strategic skills and lives. This is not to say that Americans were averse to

¹ Robert D. Divine, T.H. Breen, George M. Fredrickson, and R. Hal Williams, *American Past and Present*, 4th ed. (New York: HarperCollins, 1995), 536.

² Ibid.

suffering terrible losses or that they left others to do the real fighting. If guilt has to be assuaged, history records enough occasions when American leaders did not hesitate sending soldiers into attritional battles or campaigns. Whether along the shattered fences of Fredericksburg, in the twisted forests of Saint-Mihiel, in the cold skies over Nazi Germany, or among the Solomon Islands, Americans have shown as much a determination to fight and, if necessary, die in numbers as the next citizen soldier. Notwithstanding the American belief that members of the nation's armed forces are also members of American society who have value in their own right, democratic governments inherently are inclined towards saving the lives of the sons and daughters of the electorate rather than those of the enemy. Americans prefer firepower over manpower in war.

These two centuries represent a formative period in which many of the eight influential characteristics of American culture influenced how America means to effect strategy and fight wars.

First, the relative absence of societal support on the frontier and the requirements of overcoming the technical problems encountered during industrialization bred a spirit of pragmatism and engineering problem-solving that is reflected in how Americans solve strategic problems. Americans' approach to war is, consequently, more reflective of Baron Antoine Henri de Jomini than Clausewitz. Americans strategists such as Herman Kahn, Thomas Schelling, and Robert McNamara and strategic analysis organizations such as RAND epitomize Americans' engineering approach to solving the more intractable

problems of strategy.³ Like de Jomini, they sought (and largely failed) to abstract strategic problems from broader issues such as culture, by forcing them into a sterile environment where immutable principles and equations can be trusted to divine the correct answers. Clausewitz decried such formulas as misleading; the uncertainty of war makes subjective judgements an inseparable part of strategy.⁴ The style of defense leadership in the United States has evolved into one that is more industrial-managerial rather than strategic.

The McNamara revolution of the 1960s effected the domination of quantitatively expressible analysis. As a result, American defense leaders often become preoccupied debating the technical merits of large weapons systems. As a result, the primacy of policy as a guide for strategy and of strategy as a guide of military power and weapons systems has been reversed. The introduction of almost every major weapons system renews a paroxysm of debate that sends the defense-intellectual community back to the conceptual drawing board, and all too frequently temporarily suspends strategic planning. The tendency to confuse tactical and technical issues with what is assumed to be self-

³ American strategic thinking during the Cold War tended to be heavily deductive and analytical because most of the American civilian strategists possessed scientific, engineering, or mathematical disciplinary backgrounds. Given an education in (strategic) history which imbues a sensitivity towards the intractable and indeterminate nature of war and strategy, much of the frenzied preoccupation in developing a theoretical approach to the three most central ideas of nuclear-age American strategic theory—deterrence, limited war, and arms control—for example, could have been avoided as each has very considerable pre-nuclear analogues. Colin S. Gray, *Strategic Studies: A Critical Assessment* (Westport, Conn.: Greenwood, 1982), 18–19.

⁴ As Gray noted: “Apparent laws of statecraft and strategy are really subjective probabilistic claims. Moreover, the probability at issue is not of a kind familiar to a statistician, since probability cannot be calculated for unique events. Recognition of indeterminacy necessarily pervades [strategy].... The history of war and defense preparation is a history of struggle against uncertainty and ignorance. There is no more a science of war than there is, or can be, a science for peace.” Colin S. Gray, *War, Peace, and Victory: Strategy and Statecraft for the Next Century* (New York: Simon and Schuster, 1990), 25.

explanatory strategy prompted James Billington to note, "We ought to be seeking tentative answers to fundamental questions, rather than definitive answers to trivial ones."⁵

Second, Americans' fascination with technology, particularly with mechanical means of transportation, and their incomparable logistics skills was a logical outgrowth of their effort to conquer the wilderness. American society responded to its shortage of labor, particularly high skilled labor, by embracing machines. The American preference for the use of machines lies in the low people-to-space ratio of frontier America.⁶ Frontier experience also bred mastery of logistical thinking: As Denis Brogan discerned:

Space determined the American way in war, space and the means to conquer space.... Into empty land the pioneers moved, feeling their way slowly, carefully, timidly if you like. The reckless lost their scalps; the careful, the prudent, the rationally courageous survived and by logistics, by superiority in resources, in tenacity, in numbers. Americans who did not learn these lessons were not much use in the conquest of the West.⁷

These skills were honed as the continental and overseas geography of America's Civil War and twentieth century wars, respectively, required competence, even excellence in logistic planning and execution.⁸ This tendency usually moves the United States towards strategies that would capitalize on such skills. Yet logistical successes such as D-day,

⁵ James H. Billington, quoted in Ann Geracimos, "New Librarian Called Fundamental Scholar," *The Washington Times*, 14 September 1987; quoted in Gray, *War, Peace, and Victory*, 9.

⁶ Colin S. Gray, "Strategy in the Nuclear Age: The United States, 1945-1991." in *The Making of Strategy: Rulers, States, and War*, ed. Williamson Murray, MacGregor Knox, and Alvin Bernstein (Cambridge: Cambridge University Press, 1994), 590.

⁷ Denis W. Brogan, *The American Character* (New York: privately printed, 1944), 150; quoted in Gray, "Strategy in the Nuclear Age," 590.

⁸ As Gray noted: "The insouciance with which German staff officers approached the supply planning and execution of great campaigns in two world wars—and the consequences of that

Inchon, and Desert Shield/Desert Storm promote a logistical hubris that is captured in the U.S. military aphorism that “professionals should worry about logistics and amateurs will concern themselves with strategy.” One has to look no further than the Vietnam War to understand the consequences of such thinking: technology and logistics are raw materials for strategy, but they are not strategy.

Third, because of its size, its historical experiences of success in war, and the impatient manner of its people, America has developed a way of strategy that is fundamentally continentalist and direct.⁹ The total war experiences of the United States during this period resulted in Americans becoming even more impatient with the restraints on its ability to prosecute war. The horrors of the Civil War and the world wars gave tremendous impetus to the view that “war is hell,” and the best thing one can do in such a situation is to “get the hell out of there” by the fastest possible means. American Army Colonel James Rudder’s open letter to his troops during the drive across France in 1944 is indicative of the American approach to strategy:

There is only one reason for our being here and that is to eliminate the enemy that has brought the war about. There is only one way to eliminate the enemy and that is to close with him. Let’s all get on with the job we were sent here to do in order that we may return home at the earliest possible moment.¹⁰

The tendency to adopt a direct approach to war and strategy and return to normalcy can be evinced in many cases in American strategic history, but particularly in

casualness—stands in significant contrast to the twentieth century logistical triumphs of the United States.” Gray, “Strategy in the Nuclear Age,” 590.

⁹ Ibid., 594.

¹⁰ Michael E. Doubler, *Closing with the Enemy: How GIs Fought the War in Europe, 1944–1945* (Lawrence: University of Kansas Press, 1994), 228.

the case of Union General William Sherman's strategy to take the horrors of modern war to the Southerners during his drive to the Atlantic Ocean during the Civil War,¹¹ and the case of General Curtis LeMay's strategic bombing campaign over Japan in the Second World War. Termed military realism, this approach assumes that the country that starts the conflict commits a criminal act and in doing so forfeits any rights they might have had to protection under the law. In other words, one cannot violate the rule of law in pursuit of selfish interests and then turn around during the conflict to seek protection under the law, when those who were violated decide when and how to strike back.

Given its insularity, albeit on a grand scale, the United States cannot wage its wars unless its navy maintains the sea lines of communication. Indeed, American seapower arguably midwived American victories (including the Civil War) during the nineteenth and twentieth centuries. Despite this, as Gray notes, "the United States is neither a natural seapower nor does a maritime perspective and precepts dominate its strategic culture."¹² Americans' desire to return to normalcy and the desire to chart what they assume to be the forward progress of its military towards victory, promotes emphasis on a direct approach to warfare and victory through decisive battles rather than through the slow approach of maritime encirclement.

Fourth, because of their continental isolation, weak neighbors, and belated yet massive responses, Americans have tended to become preoccupied with developing

¹¹ As Russell Weigley noted: "The fascination with Sherman has lived on, however much his design for war reflected his stark belief that 'war is simply power unrestrained by constitution or compact': 'You cannot qualify war in harsher terms than I will. War is cruelty and you cannot redefine it'." Russell F. Weigley, *The American Way of War: A History of United States Military Strategy and Policy* (Bloomington: Indiana University Press, 1977), 152.

deterrence strategies and weapons systems, which may not be entirely effective in war,¹³ at the expense of preparing themselves and their armed forces for the certitude of war. Americans' rationale behind organizing and maintaining NATO and their desire to extend nuclear deterrence over distant allies stemmed from the desire to contain Soviet power (and Nazi power before it) onshore in Europe. The influence of an overemphasis on deterrence was evident during the Cold War when civilian strategists and scholars neglected the question of how, if deterrence failed, the United States would fight a nuclear war and with what objectives.

Fifth, Americans ignore the need for strategy. Several characteristics helped to obviate the perceived need for strategy and relating power to political purpose: Americans' faith in technology, managerial and problem-solving skills; the reality of material abundance; a history of insularity from threats; the freedom to choose when to surge its abundant defense mobilization potential; and the ability to substitute both sheer quantities of assets and the power of machines for military skills and lives. As Gray noted, this "sloppiness bred by success" has made Americans largely indifferent to the exigencies of strategy.¹⁴ The United States has experienced nothing remotely resembling neither the battle of Jena in Prussia, where between two battles the country was lost in a single day (14 October 1806), nor the Russian/Soviet experiences of 1812 and 1941–42

¹² Gray, "Strategy in the Nuclear Age," 594–595.

¹³ Gray noted that: "The United States has a strategic culture...centered upon the quaint belief that the country can purchase the right weapons in the right numbers to serve both as a deterrent in peacetime and as an adequate arsenal in crises or war." Gray, "Strategy in the Nuclear Age," 598.

¹⁴ Ibid., 595.

(particularly those during the siege of Leningrad). Societies that undergo such experiences and that do not possess the geographical and industrial advantages of the United States are more fatalistic about the dangers of war and more aware of the need not to neglect strategy. In contrast, American history tends to teach its citizens that war is episodic and is waged abroad, and that the United States will eventually win regardless of the quality or quantity of strategy and military preparedness before the war.¹⁵

Sixth, perhaps because of its mixed continental and maritime heritage, the United States tends not to view war and strategy in a holistic manner. Wars are planned for and waged by different military services reflecting three distinctly different operating environments—air, land, and sea. The inferable success of each of the services in their respective mediums against Imperial Japan, Nazi Germany and Iraq further reinforces the tendency to be relatively disinterested in gaining an understanding of the totality of war. This predilection precludes the defense establishment from gaining a deeper appreciation of the advantages of fighting jointly. It precludes them from understanding when the military should fight jointly and be more accommodating when geographic, political, or military factors will dictate the need to fight separately. Due to fiscal, geographic, and political constraints, the United States may not have the luxury of pursuing redundant paths to future victory.

Seventh, the different perspectives of elected officials and military officers hinder the ability of each to recognize when political goals and military capabilities may be

¹⁵ Gray, *War, Peace, and Victory*, 48.

poorly matched. Strategy in America lies awkwardly between the profession of politics and the profession of arms. It is the bridge that connects them, yet is neither of those activities.¹⁶ Because of Americans' cultural indifference to all but the most immediate of security concerns, politicians tend to gravitate to the more intellectually comfortable and observable confines of domestic politics. As a result, they tended to be reelected due to their seniority and policy-making skills rather on their skills in understanding and relating the use of force with political objectives and vice versa.

Because of the diffusion of political authority inherent in the American system of government and the divergent interests of policy-makers, policy in times of peace may be formed without due considerations to military requirements. For the military, the problem lies in viewing the strategic side of national security increasingly as the domain of politicians and diplomats, and the operational and tactical sides as the domain of the military, free from civilian "meddling."¹⁷ When asked by political leaders, U.S. military officers will tend to confine their advice on strategy to purely essential military matters. Indeed, within all the armed services, there is a strong bias against officers as "strategists." One does not hope to be labeled as such without first accumulating an impeccable operational record.

The effects of divergent civilian and military perspectives on the strategy-making process was evident during the Vietnam War. Resentful of the intrusive civilian strategic

¹⁶ Colin S. Gray, *Explorations in Strategy* (Westport, Conn.: Greenwood, 1996), 236.

¹⁷ Carl H. Builder, "Keeping the Strategic Flame," *Joint Force Quarterly*, no. 14 (Winter 1996-97): 77.

analysts and lacking confidence in their own atrophied strategic skills, the Joint Chiefs of Staff during the Vietnam War hesitated to force their unique insights into the strategy-making process. Instead, the chiefs acquiesced and, with little questioning, accepted President Johnson's objectives in Vietnam. In so doing, they facilitated Johnson's implementation of ambitious political goals that clearly exceeded the military means envisioned.¹⁸

Eighth, perhaps because of their continental isolation and success in war against weaker adversaries, Americans tend to be blind to cultural differences. Notwithstanding the heritage of immigration, Americans have generally not studied the cultures of other societies. In the most traumatic of U.S. wars—the Revolutionary War and the Civil War—the cultures of the combatants were too similar to have made Americans aware of the dangers of ethnocentrism.¹⁹ This ethnocentrism limits Americans' ability to understand the motivations behind the policies and strategies of other nations. While it does foster national and organizational hubris and insularity, the tendency to be insensitive to cultural differences also blinds Americans from understanding the importance of identifying their own national and organizational cultural tendencies. It limits the ability of elected officials and military officers to understand each other's interests and motivations. Within the military, it acts as a catalyst to raise already contentious inter-service debates to internecine levels,²⁰ inhibits the adaptation of a

¹⁸ See H.R. McMaster, *Dereliction of Duty: Lyndon Johnson, Robert McNamara, the Joint Chiefs of Staff and the Lies That Led to Vietnam* (New York: HarperCollins, 1997).

¹⁹ Gray, "Strategy in the Nuclear Age," 595.

²⁰ For an example of how inter-service debates can influence American strategy, see McMaster.

holistic approach to strategy, and precludes an appreciation of when to and when not to fight in an overly joint manner.

The nineteenth and twentieth formed many cultural tendencies that at times have had a deleterious effect on the U.S. strategy-making process. The Vietnam experience certainly laid bare ignorance and indifference to other cultures; the waging of a limited war with excessive reliance on machines, firepower, and logistics; and the inability to recognize when political goals and military capabilities may be poorly matched.

Yet other cultural aspects also ensure that certain military enterprises are embarked on admirably. Fortunately, many of these enterprises include larger, more orthodox tasks that bear upon war and peace. Planning and execution of a D-Day landing, of nuclear deterrence, an intricate SIOP plan, or of large-scale conventional war with redundant paths to victory, all exploit America's strengths and avoid the worst of America's weaknesses. Because strategy is the process of relating military power to political objectives, a strategist cannot afford to ignore the deeply-rooted cultures of those that wield the nation's military power.

IV. U.S. ARMY

The essence of Army culture is defined by its traditional slogan: "Duty, Honor, Country." The Army sees its own honor in its role as the nation's obedient and loyal servant. It views its duty as maintaining the skills that must be taught to the citizenry when America's citizen-soldiers are called on to fight. It sees its purpose as responding to the tasks the American people will ask of it and, more importantly, as preparing to win the nation's wars by forging America's citizenry into an expeditionary force.¹

From the Army's perspective, its fundamental weapon system is not a tank. Nor is it a rifle. It is a citizen who is armed. No other service has such strong ties to American society. The Army belongs not so much to the government as to the American people, who take a proprietary interest in it. Because the Army is not as isolated from the rest of society, unlike as the expeditionary Navy and Marine Corps, Americans are more familiar with the Army than with any other service. Consequently, Army culture tends to reflect many aspects of American culture. Those aspects of Army culture that differ from mainstream American culture result from the mind-set that is shaped by the exigencies of land warfare. Seven aspects of Army culture influence the development of U.S. strategy.

First, the Army is the most obedient and loyal of the nation's services. While they were suspicious of all standing military forces, early Americans viewed the Army with particular suspicion. By virtue of their missions and size, the Navy and Marine Corps tended not to be viewed as threats to the republic. As a result of such scrutiny, the Army

¹ Carl H. Builder, *The Masks of War: American Military Styles in Strategy and Analysis* (Baltimore: Johns Hopkins University Press, 1989), 33.

became—and remains—extremely sensitive to Americans' suspicion of standing professional armies.² When the Army discusses itself, it does so in terms of its deep roots in society, its utter obedience to the wishes of the people, and its historic service to its nation.³

Another reason why the Army tends to be the most obedient and loyal of the U.S. services may be that the Army has participated in a multitude of politically contentious tasks such as Southern reconstruction, fighting the Native Americans, labor disputes, the Spanish War, Cuban occupation, Philippine pacification, construction and operation of the Panama Canal, and the Mexican punitive expedition. As a result, the Army developed an image of itself as the government's obedient servant, divested of political responsibility.⁴

As a consequence of its obedience to the people and the government, the Army—unlike the other services—has not been inclined to develop strategies or concepts that

² It should not be a surprise that James Madison, Alexander Hamilton, John Jay devoted substantial portions of *The Federalist Papers* (1787-1788) to explaining that the proposed military institutions would not threaten domestic interests.

³ The following are examples of how the Army discusses itself. "Out of the Army's long and varied service to our nation," Bernard Rogers wrote, "have emerged certain fundamental roles, principles and precepts.... They constitute the Army's anchor in history, law and custom, suggesting the sources of its present strength and the trust and confidence of the nation in the essential role of the Army." Bernard W. Rogers, U.S. Department of the Army, Field Manual (FM) 100-1 (Washington, D.C.: Department of the Army, 1978), p. i. Bruce Palmer, Jr. noted: "Although each of our armed services is unique and different, the U.S. Army holds a special position of significance and trust. Its ranks come from the people, the country's roots, and it is closest to the people." Bruce Palmer, Jr., *The 25-Year War: America's Military Role in Vietnam* (New York: Simon and Schuster, 1984), 209. The 1981 versions of FM 100-1 stated: "The Army ethic must strive to set the institution of the Army and its purpose in proper context—that service to the larger institution of the nation, and fully responsive to the needs of its people." U.S. Department of the Army, FM 100-1 (Washington, D.C.: Department of the Army, 1981), 24. All three examples quoted in Builder, *The Masks of War*, 20.

⁴ Samuel P. Huntington, *The Soldier and the State: The Theory and Politics of Civil-Military Relations* (Cambridge: Belknap Press, Harvard University Press, 1957), 261.

appear to serve its institutional interests. Indeed, the Army has rarely seen itself as having an independent sense of mission or purpose apart from that of the United States. While it has undergone numerous identity crises, the Army has never doubted its future; it is secure in the belief that the nation will always need an army regardless of its size and whether it is composed of professionals or professionally led citizen-soldiers. The Army is more accepting of the government's political decisions than the other services. With little or no remonstrance, the Army also is more accepting of such policies as race and gender integration, post-war defense cuts, and service integration. It may even be more accepting of the government's wartime political objectives.

Second, the Army is reluctant to commit to war without societal support. During the Vietnam War, President Johnson refused to mobilize the reserves because of the alarm that it might have set off in society. After the war, Army leaders pledged that the service would never again commit itself to war without the people's support. The Army made a conscious decision to integrate its reserves so deeply into the active-force structure that it would be almost impossible to deploy significant forces without calling up the reserves.⁵ They reasoned that a society so enfranchised would be more inclined to debate and accept a war's goals, means, and potential costs. They believed that no one should start a war without first being clear in one's mind what one intends to achieve by that war and how

⁵ During the Gulf War, reserves made up 58 percent of Army total strength compared to 31 percent of the Air Force, 29 percent of the Navy and Marines, and 32 percent of the Coast Guard. Harry G. Summers, Jr. *On Strategy II: A Critical Analysis of the Gulf War* (New York: Dell, 1992), 73. Today, over 54 percent of the Army resides in the reserve component. As Generals Reimer (the Army Chief of Staff) Plewes, and Schultz noted: "Together our Active Army, National Guard and Reserve forces comprise the Total Army. A clear but bitter lesson of the Vietnam War is that when America fights with anything less than a Total Army effort we diminish ourselves." Dennis J. Reimer, Thomas J. Plewes, and Roger C.

one intends to conduct it.⁶ Indeed, there is no other service as intimately familiar with Clausewitz's "remarkable trinity" than the Army.⁷ The Army is sensitive to society's attitudes and hesitates to commit itself unless it has society's blessings.

Third, the Army advocates a direct approach to strategy. For example, the first two sentences of the current Army Field Manual (FM) 100-5 state:

The mission of the United States Army is to protect and defend the Constitution of the United States. The Army does this by deterring war and, when deterrence fails, *by achieving quick, decisive victory....*⁸

The desire for a quick victory is perhaps attributable to the Americans' lack of patience and desire to return to normalcy as soon as possible. It also may reflect the desire of Army officers to win the war, before society turns against the war effort.

Yet the desire for a quick victory also may be a reflection of the nature of land warfare. Few places on earth are as horrible as a battlefield. Whether along the shattered fences of Fredericksburg, in the twisted and broken forests of Saint-Mihiel, or on blood-soaked Omaha beach, the horror of war is ubiquitous for American soldiers who, as

Schultz, "Citizen-soldiers and America's Army: Learning from the Past—Preparing for the Future," *Army Times*, 6 July 1998, p. 36.

⁶ Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976; first pub. 1832), 88–89.

⁷ As Clausewitz noted, "As a total phenomenon its dominant tendencies always make war a remarkable trinity.... The first of these three aspects mainly concerns the people; the second the commander and his army; the third the government. The passions that are kindled in war must already be inherent in the people; the scope which the play of courage and talent will enjoy in the realm of probability and chance depends on the particular character of the commander and the army; but the political aims are the business of the government alone. These three tendencies are like three different codes of law, deep-rooted in their subject and yet variable in their relationship to one another. A theory that ignores any one of them or seeks to fix an arbitrary relationship between them would conflict with reality to such an extent that for this reason alone it would be totally useless." Clausewitz, 89.

⁸ U.S. Department of the Army, FM 100-5, *Operations* (Washington, D.C.: Department of the Army, 1993), iv. Emphasis added.

members of Western civilization, must come to terms on a personal basis with what they have seen⁹ and what they have wrought.¹⁰ No other medium provides a milieu that lends such credence to the view that "war is hell" and that consequently one should find the most direct and expeditious path to victory. No other medium promotes such circumspection about starting war. No other warfare medium encourages such a state of *inter arma silent leges* (in war the laws are silent) as does land warfare. No other American service has produced as many practitioners of military realism than has the U.S. Army. By contrast, no other medium promotes such an appreciation of the relationship between strategy and ethical behavior as does war on land (perhaps this is the reason why Army and Marine Corps officers seem to appreciate this dimension of strategy more so than officers in the Navy or Air Force¹¹). From a strategic perspective, failure to conduct

⁹ As Stephen E. Ambrose noted: "What happens to men in combat is that they see their buddy with his brains oozing out of a hole in his head. It has not killed him, and he is begging for water and for a cigarette and for morphine simultaneously. They see a man trying to stuff his guts back into his stomach. They see a man carrying his left arm in his right hand. They see men who have lost their manhood to a piece of shrapnel. They see farm boys who have lost a leg. None of these people are dead. They all have to be dealt with. They have to be comforted, they have to have some kind of medical assistance, and they are there. If they all died the way they do in...movies, war would be a lot less horrible than it is and there would be fewer atrocities." Stephen E. Ambrose, *Americans at War* (New York: Berkley, 1998), 193.

¹⁰ As Brigadier General S.L.A. Marshall stated: "The army cannot unmake [Western man]. It must reckon with the fact that he comes from a civilization in which aggression, connected with the taking of life, is prohibited and unacceptable. The teaching and ideals of that civilization are against killing, against taking advantage. The fear of aggression has been expressed to him so strongly and absorbed by him so deeply and prevadingly—practically with his mother's milk—that it is part of the normal man's emotional make-up. This is his greatest handicap when he enters combat. It stays his trigger-finger even though he is hardly conscious that it is a restraint upon him." S.L.A. Marshall, *Men Against Fire* (New York: William Morrow, 1947), 136; quoted in John Keegan, *The Illustrated Face of Battle: A Study of Agincourt, Waterloo and the Somme* (New York: Viking, 1976; illustrated reprint, 1988), 63.

¹¹ Because of the nature of hostilities at sea, navies can afford the luxury of following "civilized" rules. The nature of combat for navies tends to be characterized by fighting between large weapons systems at great distances (instead of with fellow humans at more discernable distances). Victory at sea tends to be one of absolutes. Enemy ships, submarines, and aircraft remain a threat until sent to the bottom. The flotsam of their demise will include fellow humans who are exhausted, traumatized, are at the mercy of their victors and, more importantly, cannot pose a threat to their captors' large platforms. Furthermore, unlike land warfare, the isolation of war at sea or from the sea tends to relieve sailors from moral dilemmas posed by the presence of noncombatants, terrorists, or guerilla soldiers. Three reasons may explain why Air Force

the war using appropriate means can threaten an entire military endeavor. Remembering the lessons of My Lai, Army officers are extremely sensitive to devising and following appropriate *jus in bello*¹² and criteria particularly when noncombatants are involved.

As a result of these cultural tendencies, the Army is more circumspect about committing to a large war. Its members are more risk-averse when contemplating options. They advocate strategies and a level of combat power that can effect quick and decisive victories to keep the level of American casualties to a minimum, to avoid the possibility that society may turn against the war effort. At the same time, the Army is sensitive to its soldiers' inappropriate behavior because these actions may have an adverse effect on their ability to win.

Fourth, the Army is more reluctant to commit itself to new concepts than the Navy and the Air Force. War at sea or in the air is more rapid and reactive than is war on land. The nature of combat for navies and air forces is one of a separated series of encounters characterized by meeting, fighting, and retiring. Because overly detailed orders

officers may not be as interested in the relationship between strategy and ethical behavior. First, the nature of combat for air forces—fighting between weapons systems or dropping bombs at great heights—isolates its participants from the consequences of their actions. Second, when examining the U.S. Air Force and its *raison d'être*, strategic bombing, the notion of humanness seems to conflate with institutional self-interest in the search for a decisive and casualty averse strategy to bring hostilities to a quick and successful conclusion. To its advocates, airpower promises to end wars quicker with less loss of life on both sides than more conventional land and sea military strategies. Third, and more importantly, the majority of Americans did not seem to mind the deaths of hundreds of thousands of German and Japanese noncombatants. Yet the political fallout in the aftermath of the raid on the Al Firdos bunker in Baghdad during Desert Storm (in which a large number of Iraqi civilians were killed along with a senior Iraqi security official and a third of his staff) that saw a curtailment of the strategic bombing campaign and less Air Force control over the target lists has made the Air Force and the Navy more aware of the effects of what is perceived to be unethical behavior upon the war effort.

¹² *Jus ad bellum* (justice of war) concerns the conditions that make the use of force permissible and is primarily a political responsibility. *Jus in bello* (justice in war) concerns the rules governing how war should be conducted, and is largely a military responsibility. See Paul Christopher, *The Ethics of War and Peace: An Introduction to Legal and Moral Issues* (Englewood Cliffs, N.J.: Prentice Hall, 1994), 1–16 and 228.

and instructions, if adhered to, may limit an officer's ability to react in this dynamic environment, the Navy and Air Force do not have prescriptive operational doctrines. In contrast, an army cannot move—let alone fight—without detailed, ubiquitous doctrine that allows for coordination between units ranging in size from squads to corps, and in type from artillery, infantry, air defense, armor, and supply to aviation.

The importance of doctrine to the Army cannot be overemphasized. Doctrine is a definitive guide for all units.¹³ Doctrine is an approved, shared idea about the conduct of warfare that undergirds an army's planning, organization, training, leadership, style, tactics, weapons, and equipment. Therefore, whether offensive or defensive, counter-insurgent instead of conventional warfare, or maneuver versus attritional, the Army's prevailing war-fighting doctrine is itself a sociologically based ideational framework. Thus, if the Army finds itself embroiled in a war that it had not prepared for, it still has to fight using its existing doctrine, at least initially. Worse, its ideational framework may preclude it from recognizing that it needs to change its doctrine. As Jeffrey Legro noted:

The U.S. Army had prepared for two decades before the Viet Nam war to carry out the "Army Concept," which focused on the conventional deployment of massive mechanized formations that relied on firepower to avoid casualties. This it proceeded to do—unsuccessfully—in the jungles of Southeast Asia, against an unconventional enemy, in the face of

¹³ There are different meanings of "doctrine" in the U.S. military. For the Army, doctrine is authoritative, but requires judgement in application. The Navy sees doctrine as a shared way of thinking that is not directive. In the Air Force, doctrine is the theoretical rationale behind the purpose of the Air Force. Marine Corps doctrine sets forth a way of thinking about war and strategy. It is more codification of its essence rather than a detailed body of knowledge to be consulted, even though in some aspects it is authoritative when discussing tactics. See Douglas C. Lovelace, Jr. and Thomas-Durell Young, "Joint Doctrine Development: Overcoming a Legacy" *Joint Force Quarterly*, no. 14 (Winter 1996-97): 94-100.

evidence that other methods, such as the Marine Corps' Combined Action Platoons, would be more effective.¹⁴

The possibility that it cannot recognize when change is required, and the possibility that it cannot change doctrine rapidly enough to secure a quick and decisive victory, means that the Army can ill-afford to prepare for the wrong kind of war.

The terms of war for armies is almost invariably chosen by others—by political leaders or the enemy.¹⁵ Armies enjoy far less latitude of choice about how, where, and when they engage the enemy than do the more adaptive navies or air forces. Yet, the Army is expected to win quickly, decisively, and with little loss of life. As Korea and Vietnam demonstrated, if the Army has prepared for the wrong kind of war, its failures are likely to be bloodily apparent. They have much more serious consequences to the nation's security.¹⁶ Consequently, the Army is loathe to change its doctrine without extensive conceptual elaboration and discussion. General Gordon Sullivan, until recently the Army Chief of Staff, stated: "Too often in history, armies that close ranks around

¹⁴ Jeffrey W. Legro, *Cooperation Under Fire: Anglo-German Restraint During World War II* (Ithaca: Cornell University Press, 1995), 24. See Andrew F. Krepinevich, Jr., *The Army in Viet Nam* (Baltimore: Johns Hopkins University Press, 1986), esp. 4–7, 172–177, and 258–268. This not mean that the Army has a history of doctrinal inflexibility. In the drive from the beaches of Normandy to the Rhine, for example, the Army encountered four very different environments—amphibious warfare on the beaches, offensive hedgerow fighting behind the beaches, attritional fighting in October 1944 in the Eifel Mountains and the rugged Ardennes and Hurtgen Forests, and urban fighting—for which it had little or no doctrine and was able to formulate effective tactical level doctrine in each. During this time, the Army also developed an extremely effective close air support doctrine. In only one campaign, the drive through France, did the Army actually encounter the environment for which was trained and equipped to fight. As Michael Doubler noted: "In its search for solutions to the difficulties of hedgerow combat, the American army encouraged the free flow of ideas and the entrepreneurial spirit. Coming from a wide variety of source, ideas generally flowed upward from the men actually engaged in combat." Michael E. Doubler, *Closing with the Enemy: How GIs Fought the War in Europe, 1944–1945* (Lawrence: University of Kansas Press, 1994), 58.

¹⁵ Builder, *The Masks of War*, 91.

¹⁶ *Ibid.*, 133–134.

some sacred concept paid dearly with their lives of soldiers. We cannot afford to do that.”¹⁷ Indeed, the U.S. Army has been the most aggressive of the services in examining the requirements for future warfare.¹⁸ Sullivan was one of the major proponents of carefully examining how the Army should move away from the Cold War orientation. As Chief of Staff, he consistently fostered an approach that avoided prematurely setting fixed doctrine or acquisition goals until a clearer picture of the future was available.¹⁹ The conservative nature of the Army means that it may not be as able to exploit advanced technology as quickly as the other services. It means that there may be a capability gap between Army platforms and the rest of the services.²⁰ Worse, it may mean that the Army spends too much time discussing how it should change. The Army may, as a consequence, have to use doctrine left-over from the Cold War, at least in the initial stages of the next war.

Fifth, the Army has a balanced view of the role technology plays in strategy. The principal weapons system of the Army is not a mechanical platform that has a crew. It is

¹⁷ Gordon Sullivan, “Doctrine: An Army Update,” in *The United States Army: Challenges and Missions for the 1990s*, ed. Robert L. Pfaltzgraff, Jr. and Richard H. Shultz, Jr. (Lexington, Mass.: Lexington, 1991), 85.

¹⁸ Books on the Army and the future environment outnumber those of the other services. These include: Pfaltzgraff and Schultz, eds., *The United States Army*; Douglas Macgregor, *Breaking the Phalanx: A New Design for Landpower in the 21st Century* (Westport, Conn.: Praeger, 1997); Michael J. Mazarr, *Light Forces & The Future of U.S. Military Strategy* (Washington, D.C.: Brassey’s, 1990); William E. Odom, *America’s Military Revolution: Strategy and Structure After the Cold War* (Washington, D.C.: American University Press, 1993); and *The Downsized Warrior: America’s Army in Transition* (New York: New York University Press, 1998).

¹⁹ Theodor W. Galdi, “Revolution in Military Affairs? Competing Concepts, Organizational Responses, Outstanding Issues,” [database on-line] (CRS Report for Congress, 30 November 1995); available from <http://www.fas.org/man/crs/95-1170.htm>; Internet; accessed 17 December 1997.

²⁰ In the Gulf War, for example, all U.S. aircraft were equipped with an electronic identification system called Mode IV that allowed U.S. surveillance platforms to distinguish between friend or foe

a citizen-soldier who is armed. A ship is what defines a navy. An aircraft is what defines an air force. Yet the Army is defined by a soldier who, alone, can seize and hold the territory that is instrumental for victory. Consequently, the Army places more emphasis on the individual soldier. It places more emphasis on soldiers' combat skills than on the equipment they use. The Army believes the human dimension of war to be more important than the technological dimension. As FM 100-5 states, wars are fought and won by soldiers, not machines.²¹

Indeed, the Army has stated that beside the human dimension, there may be other aspects of war that are more important than technology. The former versions of FM 100-5, for example, stated that terrain and weather have more impact on battle than any other physical factor, including weapons, equipment and supplies. "Terrain" as a word does not mean much to sailors or aviators. The seas tend to be all alike and the air certainly does not change much from area to area. To soldiers, however, terrain has a deep and intrinsic meaning. Terrain generally allows defense to be much stronger than the offense in land warfare. Indeed, it is not uncommon to see Army officers "walking terrain" over old battlefields as part of a strategy class. "Good" terrain can obviate one's technological advantage.

Another reason why the Army at times has a passive view of technology is because of its effect on doctrine. As technology improves so will the complexity of

aircraft. In contrast, the Army resorted to painting inverted "v"s on the side of their vehicles to distinguish them from those of the enemy.

²¹ U.S. Department of the Army, FM 100-5, *Operations* (Washington, D.C.: Department of the Army, 1993), 14-3.

doctrine. The Army may have a difficult time keeping doctrine from becoming too complex and detailed for a soldier—let alone a citizen-soldier—to grasp and use in combat. Given a combined arms approach, a change in the artillery's doctrine to take advantage of the Global Positioning System, for example, will require concomitant changes in the doctrines of the other members of the combined arms team. Technological advances also increase the natural tension between the need for authoritative operational doctrine and the need to keep that doctrine open to new ideas.

The primacy of the human dimension in war means that the Army will be much more sensitive to the more human aspects of war and strategy, such as leadership, ethics, politics, and culture. Army officers have a more holistic view of war and strategy than Navy and Air Force officers and will tend to be much more aware of factors that may influence war and strategy other than those related to technology or weapons systems.

Sixth, Army culture is imbued with a sense of teamwork and the need for integration. A newly-fledged lieutenant learns very quickly that one can make no movement without coordination. One cannot operate one's platoon without informing the platoons on one's right and left, one's company commander, the artillery, and the supply trains. Others depend on the lieutenant following their direction and the lieutenant depends upon them for support. Consequently, one's unit has very little independent discretion within the larger battlespace.²² (This does not change as a soldier becomes more senior. A major general in charge of a division has less autonomy than a Navy commander

²² James M. Smith, "Service Cultures, Joint Cultures, and the US Military," *Airman-Scholar* 4, no. 1 (Winter 1998): 6.

in command of a ship.). The need for teamwork facilitates interaction between branches.

Each of the branches consequently has a grasp of how the other branches operate.²³

Because of its size, however, the Army is dependent on the Navy for transportation and the Air Force for transportation and air cover. Indeed, soldiers cannot conceive of a battle context that is not interdependent.²⁴

Because it is imbued with a sense of teamwork and the need for integration, the Army is uncomfortable with situations that lack such attributes. Because it sees a lack of teamwork and integration as problems that need fixing, the Army welcomes and advocates changes that further integrate the military, such as joint operational doctrine and defense reorganization acts. The focus on coordination and interdependence between units and services also fosters a team approach to the Army's strategizing. The Army is more inclined to develop plans that integrate the other services.

Seventh, Army culture is conducive to producing superb strategists. Army officers recognize the significance of Clausewitz's remarkable trinity—the government, the army, and the people. They recognize that Americans' aversion to wartime casualties and their perception that land wars risk high casualty rates mean that employing the

²³ That there is comparatively little animosity between the Army's branches maybe because of their interaction. While infantry tends to hold court, there is an absence of an extensive, fine-structured, hierarchical pecking order from top to bottom that is characteristic of Navy and Air Force cultures. Builder remark that: "The Army branches of infantry, artillery, and armor each see themselves as inextricably dependent upon their brother branches if they are to wage war effectively.... While each branch is proud of its unique skills and contribution, there is seldom any hint of dominance, or independence from its brothers" is equally applicable to the Marine Corps. Builder, *The Masks of War*, 27. The emphasis knowing how the other branches think may explain why Army and Marine officers tend to be much more aware of the cultural tendencies of their services and those of the other services than members of any other service.

²⁴ Army officers may arguably be the best joint officers because they can define their place on a multi-service team and act accordingly. Smith, "Service Cultures, Joint Cultures, and the US Military," 6.

Army overseas in almost any capacity is a highly political undertaking and underscores the need to be circumspect, given the high level of commitment that that endeavor entails. They recognize that the goals of war on land are intimately related to the conflict's political objectives. The primary reason why the Army produces superb strategists may be because of the nature of land warfare.

In combat, the Army has to rely not only on doctrine, but also on detailed plans. Such plans are required to define and coordinate the objectives and actions of large numbers of disparate forces. The Army has to specify the goals and coordinate the actions for every unit, from squad to corps. It has to integrate plans among artillery, infantry, air defense, armor, supply, and aviation units. This need for *a priori* knowledge reduces war's friction by imparting an understanding throughout the chain of command about the rationale behind plans, including the commander's intention.

The need to coordinate the courses of action of almost every unit resulted in the ubiquitous presence of staff and staff schools. At every level of command above company level, the staff examines its objectives as defined by its immediately senior staff, examines different courses of action according to the strengths and weaknesses of its resources, and develops the objectives and the coordination plans of each of its units. For example, a company commander in the Army examines the goals his battalion staff has set for his unit, develops a plan that assigns attainable goals for each of his platoon officers using the resources at his disposal, and then executes his plan. Army officers consequently have a keen understanding of the vertical interrelationships between the strategic, operational, and tactical levels of war as well as the expertise of their respective

horizontal level.²⁵ Moreover, Army officers rotate between command billets, staff assignments, and staff schools. Consequently, Army officers, regardless of their rank, are almost constantly engaged in the dialectic between means, ways, and ends that is the core of strategizing.

Army culture promotes such traits as obedience to the people and government, sensitivity to the views of society, a sense of circumspection, and keen strategy skills. Political leaders and civilian defense officials recognize these strategic skills of Army generals and have come to rely on them for balanced and cogent strategic advice. More so than the flag officers of other services, Army generals have traditionally been major contributors to the formulation of national strategy and national military strategy.²⁶ Army generals have traditionally occupied many of the more important strategy posts in the military (Chairman of the Joint Staff and the director for Strategic Plans and Policy on the Joint Staff, for example) and in the executive branch. Since one's perceptions are influenced by culture, the influence of Army culture on a more joint and unified military is ubiquitous. Indeed, attempts for increased unification and integration under a more centralized command structure have been at the behest of former Army officers such as Presidents Truman (National Security Act of 1947) and Eisenhower (Defense Reorganization Act of 1958), and Congressman Nichols (Goldwater-Nichols Department of Defense Reorganization Act of 1986). Joint operational doctrine, for example, is

²⁵ Battalion and brigade staffs tend to confine their activities to the tactical level. Division staff officers focus primarily on the tactical and operational level while corps and higher will focus primarily on factors within the operational and strategic levels.

²⁶ Builder, *The Masks of War*, 86.

detailed and prescriptive. By contrast, the doctrines of the Navy and Air Force are loose and descriptive. Joint commands reflect the hierarchical and centralized command structures of the Army and not the highly decentralized structures of the Navy. To admit that the joint world is more reflective of Army culture is, however, not to admit failure in any way. Indeed, the Army's sense of teamwork has facilitated more "jointness" than many observers had thought possible.

Perhaps because it is highly reflective of American society's values and beliefs, Army culture is the most straightforward and open of the military's cultures. It has also engendered characteristics that should make it easier for the Army to create sensible and realistic approaches to its strategic problems and the strategic problems of the nation.

V. U.S. NAVY

Most Americans have never been to sea on a ship or outside the sight of land. They have little experience about things maritime.¹ The lack of firsthand knowledge about the sea results in broad ignorance in society about the Navy, the worth of a navy, and naval strategy.² It explains why the Navy is the most misunderstood of the American services, why it remains an enigma to Americans, and why officers of the other U.S. services tend to dismiss aspects of its culture as aberrant. The lack of firsthand knowledge of operations at sea engenders an opinion in the defense community that, as Henry Stimson noted, the Navy "frequently seem[s] to retire from the realm of logic into a dim and religious world in which Neptune was God, Mahan his prophet and the United States Navy the only true church."³ From a land warfare perspective, naval operations *are* a "dim" world.⁴ The important point of this chapter may not be how aspects of Navy

¹ Colin S. Gray and Roger W. Barnett, "Introduction," in *Seapower and Strategy*, ed. Colin S. Gray and Roger W. Barnett (Annapolis, Md.: U.S. Naval Institute, 1989), ix-xiv.

² The lack of firsthand knowledge of the sea explains why most prominent strategists wrote only about land warfare. It explains why they were completely unaware of the difference between sea and land warfare. That the world has witnessed far fewer giants when it comes to strategizing about seapower than land power may explain why the U.S. Navy holds Alfred Thayer Mahan and Julian Corbett in such high esteem. While he understood Army and Air Force cultures, the lack of firsthand knowledge may explain why Carl H. Builder in *The Masks of War: American Military Styles in Strategy and Analysis* (Baltimore: Johns Hopkins University Press, 1989) failed to understand Navy culture (and naval strategy) beyond its more observable traits. Because of Builder's inability to comprehend the Navy in the context of naval operations and his refusal to admit that the Marine Corps has a "significant voice" in the U.S. strategy-making process, *The Masks of War* remains an excellent though incomplete study.

³ Henry L. Stimson and McGeorge Bundy, *On Active Service in Peace and War* (New York: Harper, 1947), 506.

⁴ As Gray noted: "The geophysical character of an environment has profound implications for the nature and military operational purposes of conflict, for the military means suitable for combat, for tactics, and—fundamentally—for the perspectives of combatants. Some of the differences between war at sea and war on land are so obvious that they have a way of functioning as a barrier to achievement of a deeper comprehension of the individuality of the two environments. Strategically speaking...more often than not navies and armies have represented two reasonably distinct "cultures," whose mutual comprehension has

culture might affect the American strategy-making process. Rather, it may be its suggestion that navies are *fundamentally* different than land forces. The perspectives of sailors are different than those of soldiers or Marines. Consequently, one should not judge the Navy or try to make sense of naval strategy from a land-warfare perspective. It is possible to understand six characteristics of Navy culture found only in the context of navies, as they function in all their complexity and mystery.⁵

First, the Navy believes that it alone understands how to plan and execute naval strategy. Because of the Army's sense of obedience to the nation, the direct relationship between a conflict's political goals and land warfare, and the comparatively higher potential for casualties that is characteristic of land warfare, the Army accepts, and in some cases invites, debates by politicians, statesmen, and the citizenry on the merits of its strategies. The Navy, however, does not invite this kind of commentary. From a naval officer's perspective, civilian and non-naval military leaders and Americans understand land warfare and, to a lesser extent, air warfare; but they have a difficult time grasping the nature of sea warfare and specifically that it is ashore that their naval power is most influential.⁶ For example, John Mearsheimer argued that:

left much to be desired." Colin S. Gray, *War, Peace, and Victory: Strategy and Stratecraft for the Next Century* (New York: Simon and Schuster, 1990), 62.

⁵ David Alan Rosenberg, "Process: The Realities of Formulating Modern Naval Strategy," in *Mahan is Not Enough: The Proceedings of a Conference on the Works of Sir Julian Corbett and Admiral Sir Herbert Richmond*, ed. James Goldrick and John B. Hattendorf (Newport, R.I.: U.S. Naval War College Press, 1993), 173.

⁶ Regarding naval strategy, Admiral Arleigh Burke remarked that: "The Navy is very much in the same position with regard to public relations as a virtuous woman. Virtue seldom is spectacular and less often causes long editorials. Naval philosophy and maritime strategy are not spectacular. They offer no panaceas. Their success depends upon long, dull hours of hard work in which no one action is clearly decisive by itself. Its final success depends upon a series of small successes." Arleigh Burke to Robert

Insular powers like the United States can do little with independent naval forces to hurt a land power like the Soviet Union. This point was demonstrated in both world wars, when Britain's Navy had little effect on Germany's ability to wage war. To the extent that there was an impact, it involved the much over-rated naval blockade of World War I.⁷

Mearsheimer's error in not understanding the intangible yet decisive impact that navies can have on the war effort is common among American strategists.⁸ Such ignorance is captured in the argument that the United States no longer needs a blue-water navy because the Soviet/Russian navy no longer poses a threat. By definition, since people live on land, the effect of seapower on the course and outcome of war can only be indirect. Indirect, however, does not necessarily mean secondary or indecisive.⁹ Indeed, *the* intended instrument of victory in war for Germany in 1917 and again in late 1942 and early 1943 was the U-boat. The Navy believes that the most important issue in strategy is the strategic relationship between seapower and land power. As the major wars of modern history all have illustrated, the power or coalition preponderant at sea has enjoyed a critical advantage in strategic and operational flexibility.¹⁰ Britain's foremost

Dennison, 6 August 1952, Personal File, Arleigh Burke Papers, Operational Archives, Naval Historical Center, Washington, D.C.; quoted in David Alan Rosenberg, "Process," 144.

⁷ John J. Mearsheimer, "A Strategic Misstep: The Maritime Strategy and Deterrence in Europe," *International Security* 11, no. 2 (Fall 1986): 33-34; quoted in Gray, *War, Peace, and Victory*, 183.

⁸ No less a superb strategist than General George Marshall had difficulties in understanding how navies operate. Thomas Buell recounted an incident during World War II when General George Marshall, the Army Chief of Staff, was arguing with Admiral Ernest King, Chief of Naval Operations and Commander in Chief of the U.S. Fleet. Marshall stated that General Douglas MacArthur, Southwest Pacific Commander, should control fleet movements in his own area. Buell remarked that: "Marshall left his element and began foundering in uncharted waters.... [Marshall's] ignorance of naval communication procedures, for example, was glaringly exposed in a memorandum to King. 'His basic trouble,' King said later, 'was that like all Army officers he knew nothing about sea power and very little about air power'." Thomas B. Buell, *Master of Sea Power: A Biography of Fleet Admiral Ernest J. King* (Boston: Little, Brown, 1980), 216-217.

⁹ Gray, *War, Peace, and Victory*, 63.

¹⁰ *Ibid.*, 67.

soldier, Field Marshal Sir Bernard Montgomery, noted: "From the days when we humans first began to use the seas, the great lesson of history is that the enemy who is confined to a land strategy is in the end defeated."¹¹ The Field Marshal did not claim that sea powers eventually succeed in wars against land powers; rather, he argued that powers "confined to a land strategy" eventually lose.¹² The Navy believes that non-navy strategists neither appreciate nor possess enough knowledge of the relationship between seapower and land power to be trusted with the responsibility of planning and executing naval strategies.

As a result of its belief that only sailors should plan and execute naval strategy, Navy officers are reluctant to have representatives from other services develop naval campaign strategies, let alone execute such plans. While it does develop contingency plans, the Navy does not collectively codify them as doctrine for fear that their decision-making prerogatives will be appropriated by leaders in Washington. In marked contrast to the Army and Air Force, the Navy is reluctant to go outside its ranks and let American defense intellectuals develop and articulate assumptions and strategic concepts for the Navy.¹³ Because of a lack of firsthand knowledge of how navies operate and because some influential aspects of American culture are antithetical to the precepts of naval strategy (such as impatience and the desire to return to normalcy as soon as possible by advocating a direct approach to ensure quick and decisive victories), the Navy develops

¹¹ Peter Gretton, *Maritime Strategy: A Study of Defense Problems* (New York: Praeger, 1965), 213; quoted in Gray, *War, Peace, and Victory*, 67.

¹² Gray, *War, Peace, and Victory*, 67.

¹³ Rosenberg, "Process," 173.

and attempts to sell naval strategies and policies directly to the public in clear, demonstrative, and impassioned language, thereby bypassing the defense establishment.¹⁴

Second, the Navy views itself as the nation's predominant military and foreign policy instrument. Before 1890, few Americans saw the United States as a maritime nation dependent for its security and its prosperity on control of the sea approaches or that the country needed an offensive fleet. They had been satisfied with a small navy whose missions included commerce raiding and coastal defense. Before 1890, the Navy had identified its welfare with the country's economy.¹⁵ However, with the publishing in 1890 of Alfred Thayer Mahan's *The Influence of Sea Power upon History, 1660–1783*, the Navy began to identify itself less as the government's instrument and more as the guarantor of national greatness.¹⁶ In a milieu of hortatory nationalism, imperialism, and social Darwinism, realignments in the international security environment, and two decisive actions in the Spanish-American War (1898), the Navy shed its traditional role of coastal defense and commerce raiding by the turn of the century and donned the colorful raiment of a blue-water navy that had midwived the United States as a great power. The

¹⁴ Because they tend not to understand the tenets of naval strategy and how navies can impact the struggle on land, defense analysts and officers from other services will be unable to understand the merits of naval strategies such as the Maritime Strategy. They will consequently dismiss such naval strategies stating that they serve the Navy more than the country. For example, Builder noted: "An analysis of the content of the maritime strategy suggests that it is a carefully woven fabric of substrategies that more clearly serves the Navy's institutional interests in rationalizing its existing force mix than it does the U.S. national strategy or security interests." Builder, *The Masks of War*, 85. Since rationality is inherently conditioned by culture, all of the services' strategies and weapons programs—including those of the Army—will inherently be self-serving to some degree.

¹⁵ Kenneth J. Hagan, *American Gunboat Diplomacy and the Old Navy, 1877–1889* (Westport: Greenwood, 1973), 8–9.

¹⁶ As Kenneth Allard noted: "The writings of Alfred Thayer Mahan gave the U.S. Navy a strategic vision of itself and its role in the nation's defense so profound that it deserves to be called a

Navy still views itself as the guarantor of America's international status. In the eyes of sailors, the Navy is the most important and flexible kind of military power for the United States. It is the predominant instrument of American foreign policy in peacetime.

Because they believe that American strategists do not know how to wield seapower or appreciate the worth of a large navy and its connection with keeping America a great nation, Navy officers defer grudgingly to civilian authorities and non-naval military leaders. The Navy may become obstinate and resist authority when it believes the defense establishment, the President, or Congress are advocating policies or strategies that are not in accord with the Navy's view of the national interests.

Third, the Navy seeks to maintain internally balanced, multi-purpose forces and advocates strategically and tactically offensive strategies. The air, surface, and submarine communities compete with each other for funding and prominence within the Navy.¹⁷ While the competition between the communities at times is contentious, Navy officers do not believe that any of the communities is expendable or that any one can completely

paradigm." C. Kenneth Allard, *Command, Control, and the Common Defense* (New Haven: Yale University Press, 1990), 64–65.

¹⁷ The Navy's highly parochial subcultures are so different that they function as a barrier for Navy officers to gain a deeper understanding of Navy culture. While Navy culture is perhaps the most accreted and entrenched of the services' cultures, many junior Navy officers believe that "Navy" culture is little more than a summation of the subcultures of the aviation, surface, and submarine communities. Navy officers, more so than officers of other services, have a difficult time discerning characteristics of their own service's culture. Despite the divergent nature of the subcultures and the lack of interaction between the communities, Navy officers—although many do not realize it—share an institutional mind-set that is more acculturated than those of the other services with the possible exception of the Marines' mind-set. For an superb, if not spirited, study on how the struggle between the communities has shaped the Navy since World War II, see Roger Thompson, *Brown Shoes, Black Shoes and Felt Slippers: Parochialism and the Evolution of the Post-War U.S. Navy*, Center for Naval Warfare Studies Strategic Research Department Research Report 5–95 (Newport, R.I.: U.S. Naval War College Press, 1995).

dominate the others.¹⁸ Consequently, the Navy does not seek a Mahanian fleet based on a capital ship. It seeks to maintain a balanced, multi-purpose fleet that is capable of pursuing a wider variety of objectives than a fleet centered solely on battleships or aircraft carriers. The strategies the Navy advocates stress the inherent characteristics of a more balanced Navy such as mobility, flexibility, and adaptability. They emphasize endurance on station, a noncommitting continuous presence overseas, and the ability to move the strategic frontier close to the enemy's coastline thereby keeping the enemy on the defensive. These strategies stress power projection but not at the expense of establishing and maintaining sea-control.

The Navy views sea-control as the central issue in naval warfare. It trains its sailors, builds ships, and develops strategies to effect the first objective of naval operations as deduced by Mahan and Julian Corbett:¹⁹ deny the enemy's use of the seas

¹⁸ David Alan Rosenberg, "American Naval Strategy in the Era of the Third World War: An Inquiry in the Structure and Process of General War at Sea, 1945-90," in *Naval Power in the Twentieth Century*, ed. N.A.M. Rodger (New York: Macmillan, 1996), 245. In a discussion contrasting the question and implications of leadership interests in the Air Force with that in the Navy, Builder noted: "The wrestling over the leadership by the carrier aviators, the submariners, and the surface warfare specialists is appropriate: It is about where the future of the Navy lies and, therefore, whose perspective should most influence the future evolution of the Navy. The resolution of that leadership does not mean that the other dimensions of naval power will disappear. Indeed, the Navy leadership—whatever its special interests—will be responsible, as it has in the past, for integrating all elements of the Navy, from carrier aviation to mine warfare, into concepts of naval power and its mission." Builder remarked that the "The Navy mine warfare specialist who is near the bottom of the Navy's exquisite hierarchy, sees his contribution in terms of naval power, not in terms of serving the carrier elites. Moreover, the mine warfare specialist is not excluded from leadership of the Navy because he has chosen the wrong specialty, but because of how his specialty is perceived throughout the institution to relate to naval power. If the perception of the importance of mine warfare to naval power changes, so do his chances of participating in Navy leadership." Carl H. Builder, *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force* (New Brunswick, N.J.: Transaction, 1994), 226-228.

¹⁹ As Herbert Rosinski noted: "At sea...all the conditions that on land tend to strengthen the defense vis-à-vis the attack are absent. No common frontier enables the defender to establish and maintain contact; no accidents of ground help to canalise his opponent's advance into predictable lines, nor support him in making his stand." Herbert Rosinski, "Mahan in World War II: A Commentary from the United States," in *The Development of Naval Thought: Essays by Herbert Rosinski*, B. Mitchell Simpson III (Newport, R.I.: U.S. Naval War College Press, 1977), 23-24; quoted in Gray and Barnett, xi.

by destroying their fleet. Consequently, those means of warfare that are compatible with offensive sea control and are more multi-purpose—such as aircraft carriers, nuclear-powered attack submarines (as opposed to diesel powered submarines), and guided-missile destroyers—are advocated by the Navy. There is little advocacy for ballistic-missile submarines²⁰ and mine warfare platforms that may have a deleterious effect on the ability of the Navy to fund offensive sea-control platforms.

Fourth, the Navy emphasizes deploying its forces at sea and developing strategies based on actual operational experience.²¹ Beginning in the Second World War, the U.S. Navy developed a strong operational orientation. Continuous overseas deployments begun after the war were institutionalized in the 1950s and became the standard operating pattern of the American navy.²² The operational orientation has profoundly shaped Navy culture.²³ The primacy of operations means that Navy officers do not stray far from the

²⁰ Even as the Navy began to realize how the Polaris system might finally lift the Navy out of its financial woes of the 1950s, the majority of Navy admirals and officers were hard-set against the project. They realized that Polaris would grow at the expense of particularly aircraft carriers. Hopes that the Department of Defense would carry the Polaris-submarine project as a national program and fund it outside the Navy budget came to nothing. Amidst battles within the Navy, Admiral Arleigh Burke, the Chief of Naval Operations, had to convince many admirals of the merits of the program. As a result of the program's acceptance, the idea of a nuclear-powered aircraft carrier had to be scuttled. Top technical personnel were siphoned off to Polaris. Development of other systems, such as naval guns, was stopped, and so was growth in the number of aircraft carriers, cruisers, and attack submarines. See George W. Baer, *One Hundred Years of Sea Power: The U.S. Navy, 1890–1990* (Stanford: Stanford University Press, 1994), 352–362 and Harvey M. Sapolsky, *The Polaris System Development* (Cambridge: Harvard University Press, 1972), 61–229.

²¹ Rosenberg, “American Naval Strategy,” 245.

²² Rosenberg, “Process,” 155.

²³ This orientation is so strong that many sailors believe that operating at sea is the Navy's *raison d'être*. As Admiral King stated: “The be-all and end-all of the [Navy] is the conduct of active operations by the active seagoing forces.” Buell, 236. One of the highest compliments a Navy officer can receive is to be referred to as an “operator.”

operational side of the Navy and their warfare specialties during their shore tours for fear of receiving poor evaluations.

The technical demands of service at sea also mean that the shore tours of most officers consist of either technical schools or technical, budget, or manpower-oriented program offices. There is little room in a Navy officer's career path to study the finer points of naval history and naval strategy. Navy officers consequently acquire an understanding of naval strategy based on their operational experiences. They approach strategy not from a theoretical or historical perspective, but from their own narrow operational experience.²⁴

As a consequence of its operational mind-set, the Navy's strategies are based on current capabilities and actual operational experience. As David Alan Rosenberg stated: "The beating heart of the Maritime Strategy was the exploitation of both existing forces and technological innovation in an operational context."²⁵ Even though they represent a shift away from open-ocean warfighting, "From the Sea" and "Forward...From the Sea"

²⁴ Rosenberg, "Process," 153. The primacy of operations and the concomitant narrow and operationally oriented career paths of Navy officers means many Navy flag officers come late to the more sublime aspects of their profession. While they have an deep, intuitive sense of the relationship between seapower and land power, flag officers are generally unversed in political-military affairs and how to plan strategically in the context of national military strategy. They rely on a small cadre of political-military experts for advice and to develop strategic documents such as "From the Sea." Rosenberg noted that few of the Navy's political-military experts during the Cold War "Reached flank rank; fewer still achieved three or four stars. Further, only a minority of the service's top echelon leaders in Washington, Norfolk, London, Naples, or Pearl Harbor were [naval] war college graduates (in contrast with all but one of the navy's admirals in 1941), much less trained in international relations at civilian institutions." Rosenberg, "Process," 152. It is interesting that the Army, unlike the Navy, does not see the need for officers who are specifically trained as strategists. These Navy officers are assigned to strategic billets by virtue of their graduate degrees in areas such as strategic or area studies, political science, or international relations from civilian or military universities; assignments to staff colleges, or previous tours in such billets.

²⁵ Rosenberg, "American Naval Strategy," 248.

also are strategies based on traditional operational capabilities of forward deployment, strategic deterrence, crises response and control, and power projection.

Another consequence of the operational mind-set, as Rosenberg suggested, is that the Navy approaches technological innovation from an operational perspective. Between the mid-1950s and the mid-1980s, the Navy underwent profound technological changes. Nuclear-attack and ballistic-missile submarines and at least three generations of carrier aircraft joined the fleet. The Sound Surveillance System (SOSUS) was laid. Helicopter technology matured and became involved in logistics and anti-submarine and mine-warfare roles. Surface-to-air, air-to-air, air-to-ground, land-attack, and antiship missiles became operational. Space-based electronic warfare and intelligence systems became an integral part of naval operations.²⁶

Yet as comfortable as it is with technology, the Navy does not view it as a means of revolutionizing naval warfare or as a panacea. Navy officers spend their careers learning how operate technology in an operational environment and consequently view technological innovation in an operational context.²⁷ Advanced technology is a means to improve existing capabilities within the context of current naval operations. Those technologies that are seen to improve the ability of the Navy to operate, such as ballistic

²⁶ Rosenberg, "Process," 155–156.

²⁷ Among the U.S. services, the Navy most readily accepted the interpretation that the Gulf War should not be viewed as a model for the future. In the view of the Navy, its roles in the war—sea control (including the enforcing the embargo and securing the flanks of the peninsula), tactical air strikes, amphibious operations, transport, supply—and its ability to operate without foreign bases are fundamental characteristics of the U.S. sea services and were greater (though intangible and less visible) determinants of ultimate victory than the war's alleged revolutionary aspects. As Rosenberg noted: "Naval strategy, as understood by naval officers, may consist not so much in overarching, erudite theories as in day by day policy and program choices, backed up by thorough training and experience in operations and tactics, and

missile defense, and effect offensive sea control, such as nuclear propulsion, are welcomed, while those that threaten traditional operations (e.g., nuclear weapons²⁸) are viewed more equivocally.

Fifth, the Navy is reluctant to centralize command structures or develop detailed operational doctrine. Viewed by a Navy officer, war on land is systemic and linear. It stresses coordinated timetables and the need for a lock-step mentality. It moves ahead in lines parallel to the front which will ensure a safe rear area. It involves the use of concepts such as limits of advance, phase lines, coordinating points, contact points, restrictive fire lines, and "on-order" missions. War on land is inwardly focused. It emphasizes the need of soldiers to be in the designated place, in the proper sequence, and at the prescribed time in relation to other friendly units.²⁹ Coordination is achieved through careful planning, a hierarchical delegation of authority, and doctrine. Doctrine for armies is therefore inherently prescriptive. It is a series of recipes that tells commanders what to do with the force of an order. From this perspective, a commander has little latitude. Indeed, commanders and their units are evaluated on how closely they follow their doctrine.³⁰ The nature of operating at sea lends a much different perspective.

by a modern, multi-faceted fleet capable of swift deployment and effective employment." Rosenberg, "Process," 144.

²⁸ As Rosenberg noted: "Most naval officers...saw [nuclear] weapons as a presumably necessary evil, surrounded by a vast array of burdensome and stringent custodial and safety requirements. There were few navy precepts on tactical and theater nuclear warfare comparable to the army's extensive atomic operations field manuals and planning doctrine." Rosenberg, "Process," 154.

²⁹ Terry C. Pierce, "Teaching Elephants to Swim," U.S. Naval Institute *Proceedings* (May 1998): 27.

³⁰ *Ibid.*, 29.

Sea warfare is more rapid and reactive than land warfare. Naval warfare is inherently maneuver warfare. It is inherently non-linear; that is, without well-defined forward and rear areas and therefore no safe areas. In such an environment, coordination cannot be achieved by plans, a hierarchical command structure, or prescriptive doctrine. Combat effectiveness depends on a decentralized command structure and considerable delegation of individual responsibility. Prescriptive doctrine, if adhered to, would restrict the ability of commanders to fight in such a dynamic environment. Like the Marine Corps, the Navy's understanding of doctrine is therefore not prescriptive in nature. It is descriptive. It sees operational doctrine as intuitive shared concepts that shape thinking but do not dictate how one should react in the chaotic sea environment. Navy operational doctrine imparts judgment by using a when-necessary, fleet-driven approach rather than an always-required, top-down philosophy.

Because of its tendencies towards decentralization, the Navy resists efforts by U.S. political leaders to centralize the military's command structure. During the Civil War, for example, the Navy resisted the efforts of Edwin Stanton, Secretary of War, to appropriate the Navy as an adjunct of the Army. After the Second World War, the Navy unsuccessfully tried to thwart the efforts of President Truman to unify the services in the National Security Act of 1947. In 1958, the Navy tried to block Eisenhower's efforts to shorn the Navy of operational control over its forces and administrative responsibility for force planning and programming. In 1986, the Navy resisted Goldwater-Nichols and its goal of further centralization. Put simply, no senior Navy leader thinks a central non-Navy authority—regardless of whether a uniformed officer or a civilian with a large

staff—can understand seapower sufficiently to direct naval operations or run a Navy whose culture and mode of warfare dictate the need for decentralization and delegation of individual responsibility.³¹

Cultural inhibitions against centralization also affect how the Navy approaches information technologies. As James FitzSimonds noted, although wireless equipment was made readily available to the Navy, it saw little operational use for nearly two decades.³² In the view of Navy officers, the operational advantages of radio were outweighed by the reduction of individual authority. A high degree of centralized control that wireless offered threatened to interfere with the actions of commanders accustomed to virtual independence. Since the Navy began to make operational use of wireless on the eve of the First World War, command authority has indeed gravitated upward. Despite introduction of contemporary computer-to-computer tactical data links and satellite communication, commanding officers have retained much of their independence. When one examines the implications of pervasive high speed information exchange made possible by the technologies of an information-led RMA, however, the transition to network warfare³³

³¹ Baer, 369. As Admiral Arleigh Burke wrote: "Decentralization means we offer officers the opportunity to rise to positions of responsibility, of decision, of identity and stature—if they want it, and as soon as they can take it. We believe in command, not staff. We believe we have "real" things to do.... We decentralize and capitalize on the capabilities of our individual people rather than centralize and make automatons of them. This builds that essential pride of service and sense of accomplishment. If it results in a certain amount of cockiness, I am for it. But this is the direction in which we should move." Burke to Rear Admiral Walter G. Schindler, 14 May 1958; quoted in David Alan Rosenberg, "Arleigh Albert Burke, 17 August 1955–1 August 1961," in *The Chiefs of Naval Operations*, ed. Robert William Love, Jr. (Annapolis, Md.: U.S. Naval Institute, 1980), 287.

³² James R. FitzSimonds, "The Cultural Challenge of Information Technology," *Naval War College Review* 51, no. 3 (Summer 1998): 11.

³³ For a description of the Navy's concept on network warfare, see Arthur K. Cebrowski and John J. Garstka, "Network-Centric Warfare: Its Origins and Future," U.S. Naval Institute *Proceedings* (January 1998): 28–35.

may be prolonged and may have to rely on the determined efforts of a few key individuals as in the case of the transition to wireless.

Much like its institutional dislike for centralized command, the Navy is reluctant to develop detailed joint operational doctrine. To Navy officers, unified doctrine means one accepted style of doctrine—the methodical, plodding, and command-limiting doctrine of land warfare. Because it shies away from articulating its own operational doctrine, Navy doctrine has evolved much like the British Constitution—largely unwritten but thoroughly understood by its practitioners.³⁴ Indeed, describing sea warfare to those lacking firsthand knowledge may be problematical. Because of a lack of written doctrine, however, the Navy has failed to articulate and defend the differences between warfare at sea and warfare on land. Army and Air Force officers consequently have a difficult time understanding that sea warfare is different, let alone understanding how it differs. Unless the Navy makes the effort to describe its style of fighting in a joint doctrinal context, joint operational doctrine will remain highly reflective only of Army doctrine.

The Navy is the most difficult of the services to understand. The nature of warfare at sea has engendered characteristics that make it difficult for the Navy to integrate itself into a more interdependent military. The inability of others to realize that the mind-set of sailors is different than those of soldiers, however, has further isolated a navy that has little physical contact with the rest of the military. The inability to understand how sea warfare differs from land warfare risks not exploiting the potential of the world's most powerful navy and not realizing the full potential of joint integration.

To say that the Army produces superb strategists is not to imply that the Navy does not. The Navy produces outstanding *naval* strategists. To accept this realization is to begin to view American strategy in a more holistic manner.

Regardless of their difficulties in adapting to a more joint military or of their difficulty in articulating and defending the differences between the principles of warfare at sea and warfare on land, or even of the challenges of moving away from open-ocean warfighting, sailors deployed for up to six months off the world's coastlines remain confident in the knowledge that while few understand the need for a navy, the nation's leaders will in the near future ask the question, "Where are the carriers?" and will again rely heavily on the navy's operational abilities, its overseas presence, and the ability of a carrier battlegroup to deliver in unambiguous terms the nation's intentions and resolve.

³⁴ Pierce, 26.

VI. U.S. AIR FORCE

Air Force culture lacks the cohesion that is characteristic of the other services' cultures. It does not have two or three centuries of accrued experiences. Indeed, the existence of the Air Force spans only two generations. The struggle to establish an independent American air service only goes back as far as three generations. Mere time, however, may not be the only reason why Air Force culture lacks cohesion.

Like modern corporations, the Air Force is characterized by a high-technology, multiple-subculture organization. Because of the wing concept and the nature of Air Force operations, there is little interaction among its fighter, bomber, tanker, reconnaissance, theater airlift, global airlift, and ballistic-missile communities. Because of this isolation, each of these communities has its own highly developed culture. Support personnel, removed from the flightline and silo, are closely integrated with civilian specialists and tend to identify themselves more by their occupational identifications than by their affiliation with the Air Force. Air Force technological research-and-development units are virtually indistinguishable from civilian research-and-development institutions.¹

Soldiers are bound together by a loyalty to their nation and profession of arms; sailors share the romanticism of the sea and an allegiance to a tradition-rich institution; and Marines are loyal to each other and to the Corps. What holds (or what is supposed to hold) Air Force officers and their subcultures together is a service-oriented *concept* to

¹ Franklin D. Margiotta, "Changing Military Manpower Realities: Implications for the Next Decade," in *Changing U.S. Military Manpower Realities*, ed. Franklin D. Margiotta, James Brown, and Michael J. Collins (Boulder, Colo: Westview, 1983), 22-24.

effect airpower.² Without the benefits of time-rendered maturity or a less sublime institutional linchpin, the Air Force may be susceptible to institutional maladies such as occupationalism and community nepotism. The Air Force is more like a modern corporation than a military institution. Its institutional problems are similar to those found in large corporations.

The Air Force is a different kind of military institution. By its very nature, the Air Force has to expend more energy than the other services to develop and sell a cogent and unifying vision of itself to maintain institutional cohesion and remain an effective military organization. Consequently, one should not judge the Air Force from the perspective of how a "military institution" is supposed to behave based on the other, older services. Indeed, the forefathers of the Air Force defined their service and their careers against Army tradition. It is therefore possible to identify as least six characteristics of Air Force culture that reflect air operations and the need for a strong unifying vision.

First, the Air Force is still plagued by paranoia about its survival as a service even after most sensible people have long accepted the strategic utility of airpower.³ The origin of this demon lies in the Air Force's long and difficult struggle for independence. The lack of evidence on the efficacy of airpower during the First World War and the inability to demonstrate its worth during the interwar period drove the airmen to talk about airpower

² For recent studies on the unifying role of airpower in the Air Forces, see Carl H. Builder, *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force* (New Brunswick, N.J.: Transaction, 1994) and Mike Worden, *Rise of the Fighter Generals: The Problem of Air Force Leadership, 1945–1982* (Maxwell, Ala.: Air University Press, 1998).

³ James Mowbray noted that the Air Force's paranoia is virtually a "sacred legacy of the service." James A. Mowbray, "Air Force Doctrine Problems: 1926–Present," *Airpower Journal* 9, no. 4 (Winter 1995): 41 (note 127).

in terms of promise and prophecy. The early advocates took their proselytizing to the public in hope of forcing the Army to acquiesce to the wishes of the air advocates and establish a separate air service. Will Rogers became an early advocate and voice for airpower. His statements reflect the attitudes of airman that have persisted. He stated that: "When we lose the next war, as we probably will, we can lay it onto one thing—the *jealousy* of the army and navy towards aviation. They have *belittled it* since it started and will keep on doing it...."⁴ One can understand how decades of striving for a theory in such a jeremiad environment can engender an institutional "short man's" complex.⁵

The Air Force also is preoccupied in developing elaborate arguments to defend its independence.⁶ Air Force officers are extremely sensitive to Air Force "bashing." Constructive criticism or good-natured ribbing elicit a knee-jerk defense mechanism among Air Force officers that is as unattractive as it is unwarranted.⁷ Within the institution,

⁴ Bryan Sterling, *The Best of Will Rogers* (New York: Crown Publishers, 1979), 115; quoted in Builder, *The Icarus Syndrome*, 71. Emphasis added.

⁵ Herbert Simon observed that a person: "Does not live for months or years in a particular position in an organization, exposed to some streams of communication, shielded from others, without the most profound effects upon what he knows, believes, attempts to, hopes, wishes, emphasizes, fears, and proposes." Herbert A. Simon, *Administrative Behavior*, 3rd ed. (New York: The Free Press, 1976), xvi; quoted in Jeffrey W. Legro, *Cooperation Under Fire: Anglo-German Restraint During World War II* (Ithaca: Cornell University Press, 1995), 20.

⁶ For example, Philip Gold complained that: "Today, nobody questions the Marines because the British failed at the Gallipoli landing in 1915, or sneers at modern warships because a clique of long-dead admirals resisted the shift from sail to steam. Yet the Air Force finds itself constantly attacked because of what some British or Italian (or American) zealot proposed 50 or 70 years ago...or because of some ripped-out-of-context Air Force comments in the aftermath of Desert Storm." Philip Gold, "What the Air Force Can Do for You," *Washington Times*, 6 July 1998.

⁷ The findings of this thesis were briefed by the author to over eighty Naval Postgraduate School students consisting of roughly fifty Navy, fifteen Army, eight Marines, and seven Air Force officers. The findings were phrased to provoke and stimulate class discussion. With the exception of the Air Force officers, all the services' representatives hastened to defend their cultures. On one of the debrief sheets, however, an Air Force officer had written: "You made four jokes on the Air Force, two on the Navy, and none on the others—what did the Air Force ever do to you?" If the Air Force is being "bashed" more so than the other services, which is not unreasonable to assume, it may be because Air Force officers are easily provoked.

airmen's inability to tolerate self-criticism results in a highly charged, reactionary environment.⁸ Internal debates are characterized less by intelligent and reasoned arguments and more by a pillorying of participants bold enough to question the canons of airpower. In a joint context, institutional paranoia inhibits constructive discussions on the merits of airpower. It acts as a catalyst to raise already contentious inter-service debates to internecine levels,⁹ which hinders the adoption of a holistic approach to strategy.

Second, Air Force officers have a narrow, theoretical approach to strategy. The American air force was conceived around a theory rooted in the assumption that wars can be won from the air. The Air Force's legitimacy as an independent service and its assertion that land power and airpower are equal and interdependent forces rests on such a theory.¹⁰ The theory that airpower can be employed decisively by striking at the heart of the enemy is contained in Air Force basic service doctrine, of which there have been at least twelve different versions in the last fifty years.¹¹ Described by the Air Force in

⁸ The author has been struck by the number of times the term "nonattribution" appears in Air Force literature and is used in discussions with Air Force officers. Builder may be correct in stating that the Air Force has a highly analytical culture which facilitates debates on internal questions. Builder, *The Icarus Syndrome*, 24. Indeed, *within* the Air Force—and in particular within the ranks of its flag officers—there is a lot of open discussion on how to resolve Air Force problems. Unlike the other services, however, the Air Force does not easily forgive officers who air the service's dirty laundry in print, however constructively, even in official Air Force publications.

⁹ Richard Szafranski points out that General Merrill McPeak, chief of staff of the Air Force, "violated some of the norms of interservice rivalry in his public testimony before the Commission on Roles and Missions of the Armed Forces (CORM) in 1992. Szafranski observed that: "We might expect the Army and the Navy to feel free to address, however reluctantly, such things as the added value and cost of the F-22 aircraft.... If the Army and the Navy find direct attacks on the Air Force necessary or even highly useful, we might also expect them to attribute their behavior to the Air Force's previous behavior." Richard Szafranski, "Interservice Rivalry in Action: The Endless Roles and Missions Refrain," *Airpower Journal* 10, no. 2 (Summer 1996): 53–54

¹⁰ Carl H. Builder, *The Masks of War: American Military Styles in Strategy and Analysis* (Baltimore: Johns Hopkins University Press, 1989), 28.

¹¹ To note that the Air Force has published twelve doctrines is not to say that there have been twelve different theoretical concepts. The Air Force has had three major doctrines over that period: strategic

revelatory terms as "What we hold true about aerospace power,"¹² Air Force basic service doctrine is almost exclusively theory. It explains how airpower works and why it is important to those who must support it. Theory colors almost every action of the Air Force. The Air Force defends itself using theory. It explains its missions and strategies in terms of theory. Many Air Force officers believe that since their service lacks a deep historical record compared to the other services, the Air Force has no other choice than to argue from theory.¹³ Such a milieu produces officers who are not adverse to theory.

As result of its theoretical mind-set, the Air Force, by its own hand, finds itself in a Catch-22. It can only justify its existence based on the theory that airpower is decisive by itself. To have been equivocal on that point during its struggle for independence might have implied uncertainty about the early advocates' cause. Yet the theory that airpower is decisive is nearly impossible to prove because it, like naval power, is enabling in nature. By definition, since people live on land, the effect of airpower and seapower on the course and outcome of war can only be indirect. Indirect, however, does not necessarily mean secondary or indecisive. Indeed, airpower has been a decisive element in almost all of America's major wars of this century. The intuitive mind of a Navy officer is comfortable with the intangible nature of seapower and airpower. The narrow, theoretical mind of an Air Force officer, however, has difficulty accepting the intangible nature of

nuclear bombing (1953–1971); a shift to tactical airpower (1971–1992); and no overarching universal formula (1992–present). Szafranski, 59 (note 20).

¹² Department of the Air Force, Air Force Manual (AFM) 1–1, *Basic Aerospace Doctrine of the United States Air Force* (Washington, D.C.: Department of the Air Force, March 1992), vii.

¹³ For an example of such reasoning, see Szafranski, "Interservice Rivalry in Action."

airpower and its successes. In the engineering mind of Air Force officers, airpower is a problem that needs solving.

With such institutional interests vested in a single theory, Air Force officers are not content with anything less than decisive victory delivered solely by Air Force aircraft. The inferable nature of its successes over Nazi Germany, Imperial Japan, Vietnam, and Iraq drives the Air Force to maniacal lengths to prove to itself and its detractors once and for all that airpower by itself can be decisive. Like Yossarian, the Air Force “has decided to live forever or die in the attempt.”¹⁴ While few can conceive of a conflict where airpower would not be useful, let alone indirectly decisive, the drive to prove that airpower acting independently of other kinds of forces can deliver victory drives a wedge between the air service and the other services, provides a lightning rod for its detractors’ arguments, and feeds a gnawing sense of institutional insecurity within the Air Force.

Third, more so than any other service, the Air Force is enamoured with technology. If flight is a gift of technology, and if technology poses the only limits on the freedoms of that gift, then it is to be expected that technology will be pursued by those who love to fly.¹⁵ The pursuit of technology might also be explained by Air Force institutional insecurity. The more the Air Force pursues technology, the closer it comes to effecting a theory of discrete destruction, and the closer it comes to establishing the decisive capability of airpower, which, in turn, will ensure continued institutional independence.

¹⁴ Joseph Heller, *Catch-22* (New York: Scriber, 1994; first pub. 1955), 36.

¹⁵ Builder, *The Masks of War*, 19.

Air Force use of advanced technology as a panacea is, of course, reflective of American culture. The Army and Marine Corps possess a balanced view of technology.¹⁶ The Navy enjoys technology in the context of operations.¹⁷ In the air, as at sea, technology is required not merely in order to fight but for sheer survival. If only for this reason, argues Martin Van Creveld, the simpler the environment, the greater the benefit technological superiority can confer.¹⁸ As a result, the Air Force is free to exploit the American cultural preferences for technology because the relationship between advanced technology and success in the Air Force's combat medium is more direct.

As a consequence of its dogged pursuit of technology, the Air Force has an insatiable appetite for newer and more technologically advanced aircraft. A trade of more of the less sophisticated F-16s for F-15s, for example, was not a welcome choice. It considers fathers and sons flying the same B-52 a national disgrace.¹⁹ When the Air Force has to choose between quantity and quality, it invariably selects the latter. Air Force officers will become concerned more if their potential rivals produce advanced aircraft than if they produce vast numbers of less capable airplanes.

¹⁶ The contrast between the Army's emphasis on the soldier and the Air Force's attachment to technology is readily seen on the grounds of their military academies. The West Point plain is bordered by statues of Washington, MacArthur, Eisenhower, and Patton. In contrast, the central area of the Air Force Academy is bordered by four static displays of an F-4 and F-105 from Vietnam and an F-16 and F-15 from the Gulf War.

¹⁷ The contrast between the Navy's emphasis on operations which allows little time for education, and the Air Force's emphasis on technology and concomitant technical education can be seen in the number of doctoral degrees held by their serving line officers. In 1997, the Navy was reported to have only seventy-seven serving line officers with doctoral degrees while the Air Force has nearly nine hundred. Scott Wilson, "Instructors at Academy Fear Changes," *Baltimore Sun*, 17 July 1997; quoted in James M. Smith, *USAF Culture and Cohesion: Building an Air and Space Force for the 21st Century*, USAF Institute for National Security Studies Occasional Paper 19 (Colorado Springs, Colo.: INSS, 1998), 21.

¹⁸ Martin Van Creveld, *Technology and War* (New York: The Free Press, 1989), 228-229.

¹⁹ Builder, *The Icarus Syndrome*, 157.

Fourth, the Air Force displays a cultural identification with piloted aircraft and an organizational bias against unmanned vehicles. Pilots led the struggle to create an American air force. They led American air forces in war. They came to dominate Air Force leadership. As a result, Air Force culture is characterized by a two-caste system—the elite pilots (and to a lesser extent the non-pilot officers such as navigators and bombardiers) and everybody else.²⁰ It is an article of faith among Air Force leaders that piloted aircraft outperform unmanned aircraft. Nowhere was the bias against unmanned vehicles so evident than during the development of the ballistic missile in the early 1950s. In comparative terms, neither the Army nor the Navy suffered the internal strains and bitterness that beset the Air Force during this time.²¹ The unique institutional problem with an Air Force ballistic missile was not its threat to the fighter or transport, but to the bomber because it offered an alternative to the traditional means of advocating air power, a tradition cherished by a leadership that was overwhelmingly comprised of bomber pilots.

As a result of this bias, Air Force leaders may find it hard to see the revolutionary implications of unmanned vehicles. They may explicitly resist technological innovation, such as ballistic or cruise missiles, that threaten the role of premier Air Force aircraft.

²⁰ It is interesting that the non-pilot flying officers in the Navy and Marine Corps appear to be accorded much more respect within their services than are their counterparts in the Air Force. For example, Builder noted that: "An Air Force officer who had served as the radar officer on the E-3 AWACS observed that the pilot was the mission commander; while on the Navy's E-2 Hawkeye the radar officer was the mission commander. He asked me whether I thought the flying or surveillance was the principal mission of these aircraft." Builder, *The Icarus Syndrome*, 227.

²¹ Edmund Beard, *Developing the ICBM: A Study in Bureaucratic Politics* (New York: Columbia University Press, 1976), 230–231.

Meanwhile, they may promote innovations such as unmanned reconnaissance aircraft, for example, which do not threaten premier Air Force platforms. Another consequence of this bias is that Air Force leaders may choose piloted aircraft over non-piloted weapons systems, even though the latter may be better able to prove the assertion that wars can be won from the air. In terms of the RMA, the predilection for piloted aircraft is so strong that the Air Force will have tremendous difficulties in transferring the share of its strike capabilities from bombers to precision-guided unmanned missiles that will not require the services of airborne launch platforms.²² This transition will be more difficult than the transition into space operations, which presumably would be crewed. Indeed, for an institution that is on the leading edge of technology and professes that wars can be won from the air, the Janus-faced nature of the Air Force on technology is surprising.

Fifth, the Air Force emphasizes offensive air operations and the need to gain air superiority. Like sea warfare, taking an offensive posture is much easier in the air than taking a defensive stance. As deduced by Giulio Douhet, Hugh Trenchard, and Billy Mitchell, the offensive use of airpower allows one to take the fight to the enemy. The enemy's armies, population and war-making centers can be bombed to the point where the enemy no longer retains the ability or the will to wage war.

Air Force strategies stress power projection, but not at the expense of establishing and maintaining command of the air. Like sea-control to the Navy, the Air Force sees the need to gain air superiority as a central issue. The Air Force cannot bring airpower to bear

²² If the means of air power continues to be narrowly limited to primarily piloted vehicles and if Air Force missiliers and space technicians continue to be excluded from the executive leadership of the Air

effectively against the enemy unless command of the air is achieved (air superiority cannot be achieved, as the early advocates argued, by an air arm supporting and subordinated to ground commanders). The Air Force believes that air superiority is best achieved not through defensive measures such as anti-aircraft fire or missiles (which may not be able to secure command of the air over enemy territory), but through offensive air operations conducted by fighter aircraft.

Because it emphasizes offensive air operations, those means of warfare that are compatible with power projection such as F-15Es, F-117s, and B-2s (and their air-to-surface munitions) are funded more so than tanker, theater or global-airlift programs. Because of the overarching need for command of the air, moreover, there is also much emphasis on developing and constructing advanced air superiority fighters such as F-15C/Ds and F-22s (and their air-to-air missiles) and, to a lesser extent, surveillance aircraft such as the E-3B/C Sentry Airborne Warning and Control System (AWACS). The disdain for air defenses means that the enemy's surface-to-air missiles (SAMs) and anti-aircraft artillery are not as highly regarded as enemy fighters. There is therefore much less emphasis on types of platforms designed to combat enemy air defenses and their SAMs, such as the retired F-4G Wild Weasel and the recently retired EF-111A Raven.

Sixth, due to its experiences in the Cold War, the Air Force views itself as the nation's predominant strategic instrument. In 1947, the National Security Act which established the Air Force as an independent service, required that it prepare forces for a

Force, what is stopping the missiliers and space advocates from arguing, as did the Air Force forefathers before them, that these means should be independently controlled for their effective development and use?

mix of "independent" functions such as air superiority, strategic bombardment, and strategic reconnaissance, and "cooperative" functions, such as air defense, air transport, support of joint amphibious and airborne operations, and assisting the Army and the Navy.

In what would become the *raison d'être* of the Air Force from 1947 until the late 1980s, the National Security Act also required the Air Force to "support national interests."²³ As the Air Force views it, the Navy believes itself to be the guarantor of the greatness of the American empire. The rookie Air Force, by contrast, was called out of the "bullpen" to protect the nation from the horrors of nuclear holocaust and possible national extinction.²⁴ American leaders' decision to use the Air Force as a strategically oriented service, which was not inconsistent with Air Force leaders' own conception of the role of airpower, shaped its Title 10 responsibilities such as doctrine, aircraft weapons-system development, and force structure throughout the Cold War. For thirty years, the overarching mission of the Air Force was not to chase MiGs across the Yalu or fling napalm across rice paddies; rather, it was to operate as a strategic instrument of national policy first to deter and, failing that, to protect, and preserve national integrity

²³ Harry S. Truman, "Executive Order 9877: Functions of the Armed Forces," 26 July 1947. Reprinted in *The United States Air Force: Basic Documents on Roles and Missions*, ed. Richard I. Wolf (Washington, D.C.: Office of Air Force History, 1987), 87-90; quoted in James M. Smith, "The United States Air Force in the Joint Battlespace: USAF Vision, Joint Vision, and National Strategy" (paper presented at the 1998 Institute for National Security Studies' annual meeting, Monterey, Calif.: 6-7 November 1998), 8.

²⁴ Department of the Air Force, AFM 1-2, *United States Air Force Basic Doctrine* (Washington, D.C.: Department of the Air Force, March 1953); quoted in Smith, "The United States Air Force in the Joint Battlespace," 8.

and values.²⁵ The Americans turned to the Air Force as their preferred instrument in the conduct of the Cold War.

Because it views itself as the nation's predominant strategic instrument, the Air Force focuses its spending and systems development on strategic and high-end operational systems such as the B-52, B-2, and F-117 and then adapts these systems for lower-spectrum missions when necessary.²⁶ Even though it is still required to continue nuclear deterrence and be fully prepared to conduct major wars, the Air Force strategic paradigm may inhibit it from understanding how it can operationally and fiscally support lower-spectrum missions better. The Air Force may become obstinate when it hears the Joint Staff or unified commanders-in-chief advocate policies or strategies that are not in accord with the Air Force's strategic perspective.

Seventh, the Air Force emphasizes that Air Force airpower should be executed in a decentralized fashion, yet centrally controlled by pilots. Because air warfare is much more rapid and reactive than land warfare, combat effectiveness in the air is more efficient when led at the lowest possible level of command. The concept of strategic bombardment rests on a logistical concept of warfighting. From the early 1920s, airmen have been taught to discover, prioritize, and destroy those elements of "vital centers" or "centers of

²⁵ The Air Force desire to protect the nation at times overrode political restraints. Fred Kaplan recounts in *The Wizards of Armageddon* an incident between Robert Sprague, a civilian defense analyst, and the head of the Strategic Air Command (SAC), General Curtis LeMay. " 'If I see that the Russians are amassing their planes for an attack,' LeMay continued, 'I'm going to knock the shit of them before they take off the ground.' Sprague was thunderstruck by the revelation.... Most startling was LeMay's final bit of news, that he would order a preemptive attack against Soviet air bases. 'But General LeMay,' Sprague said, 'that's not national policy.' 'I don't care,' LeMay replied. 'It's my policy. That's what I'm going to do'." Fred M. Kaplan, *The Wizards of Armageddon* (New York: Simon and Schuster, 1983), 134.

²⁶ Smith, "The United States Air Force in the Joint Battlespace," 13.

gravity” that are essential to the enemy’s ability to wage war. Central planning and execution will assure that maximum effort will be brought to bear on these elements, whose destruction will result in decisive victory. In the view of airmen, airpower must not be squandered or its potential wasted by parceling it across the battlefield to many commanders. The strategic air campaigns over Nazi Germany, North Vietnam, and Iraq, and the development of the SIOP all reflect the Air Force predilection for central planning.

Because the Air Force emphasizes that Air Force airpower should be controlled by airmen and from an airman’s perspective, the Air Force dominates the air-campaign planning process.²⁷ The air component commander has to integrate the tactical perspective of the ground services with the Air Force strategic perspective. Airmen view targets not in terms of enemy artillery batteries or tank columns, but as functional, sequenced effects upon enemy systems that encompass the strategic, operational, and tactical levels of war.²⁸ As in the Gulf War, the Air Force component commander may plan two simultaneous air campaigns—one strategic and the other tactical—to accommodate these divergent views.

²⁷ As Michael Gordon and Bernard Trainor noted: “The air war [in the Gulf War] was...riddled with interservice tensions. To run the air campaign, a Joint Forces Air Component Commander was created. The Air Force dominated the process. Its planners believed in centralized control of airpower and attacks against targets critical to the overall campaign, but the Army, Marine Corps, and Navy were unhappy with the system. The Air Force believed it was weakening the enemy by hitting Iraqi forces at home and with the “kill boxes” it drew on battlefield maps, but the Army and Marines complained that specific targets were ignored that they wanted to be hit.” Michael R. Gordon and Bernard E. Trainor, *The Generals’ War: The Inside Story of the Conflict in the Gulf* (Boston: Little, Brown, 1995), 472.

²⁸ Smith, “The United States Air Force in the Joint Battlespace,” 17.

Eighth, the Air Force has a more expansive perspective of the battlefield than either the Army or the Marine Corps. Air Force pilots tend to think in strategic terms because they believe the Air Force is the nation's predominant strategic instrument. They tend to think in strategic terms because of their institution's drive to prove the decisiveness of strategic bombardment. But the main reason they think in strategic terms is that they view the battlefield from above, with the benefit of wide vision and extensive reach. Their theater-wide perspective is of a scope, scale, and focus that is much different from soldiers and Marines. The range of the ground services' perceptions is limited to the battlefield in front of their forces, which is much smaller in scale than the theater-wide scale of the Air Force operational mind-set. In advancing to their objectives, soldiers and Marines tend to focus on threats that loom on the battlefield as they must first safeguard their forces. The ground units must attack things in comparative sequence because they cannot reach targets to the depths available to the Air Force. In the Air Force view, there is much more to war than destroying the nearest tank column; air superiority must be achieved and maintained, enemy supply routes must be interdicted; and enemy command-and-control capabilities must be rendered useless. The operational mind-set of a pilot is focused on what targets, if destroyed, will most contribute to winning the war, then the campaign, and then the battle. In the Air Force view, airpower can win battles *or* it can win wars.

As a result of its comparatively more expansive operational mind-set, the Air Force is reluctant to develop detailed, joint operational doctrine not only because prescriptive doctrine, if adhered to, restricts the ability of Air Force aviators to fight in

such a dynamic environment, but also because of the divergent perspectives of the Air Force and the ground services. Because it reflects Army doctrine more than the other services' doctrines, joint operational doctrine reflects the perspective of the commander of the Army's principle maneuver unit, the division. The range of the division commander's perceptions of the battlefield is based on a division's operational area: roughly 300 by 100 miles, depending on the terrain and disposition of the enemy. The division commander, facing a direct and present threat, focuses on the immediate battlefield.²⁹ The Air Force sees attempts to "shoehorn" its efforts and perspective into a small box for the sake of a ground commander's objectives as a serious misuse of airpower.³⁰ In the Air Force's view, joint doctrine that emphasizes the requirements of the division commander seriously limits the efficiency and effectiveness of American airpower.

The Air Force has had difficulty writing operational doctrine, in contrast to the Army and Marine Corps, and to a lesser extent the Navy. Only recently has the Air Force begun to articulate the mind-set of the airman and demonstrate how airpower can best be used. Unless the Air Force continues to describe its style of fighting in a joint doctrinal context, joint operational doctrine will remain highly reflective of the limited ground-service perspective.

The Air Force cultural mind-set is difficult to understand. The Air Force is a different kind of military institution. Air Force institutional insecurity and the nature of

²⁹ Ibid., 19-20.

³⁰ Ibid., 19.

air warfare make it difficult on the Air Force to integrate itself into a more joint military. The Air Force has to work hard at explaining a cogent vision of airpower to airmen and to the other services without appearing to proselytize. It is ironic that the Air Force is so troubled because the United States is primarily an air power rather than a land power, sea power, space power, or nuclear power. America is an air-using society with a large and longstanding scientific-industrial base to develop commercial and military air power.³¹ Indeed, airpower is the quintessential American weapon. It distinctively demonstrates American high technology; it raises war literally above the messiness of the conflict on the ground where alien cultures reside; it promises few American casualties; and it uses a theory of discrete destruction that promises a direct and quick route to absolute victory without overly taxing society's patience.

³¹ Colin S. Gray, *Explorations in Strategy* (Westport, Conn.: Greenwood, 1996), 85.

VII. U.S. MARINE CORPS

Marine Corps culture is more tightly-knit and homogeneous than the other services' cultures. Its history as an institution is marked by bloody battles on the periphery of U.S. interests and by constant political struggles to secure its existence. Its history, small size,¹ and emphasis on warfighting engenders a *semper fidelis*, "band of brothers" mentality that makes the Marine Corps the most cohesive of military institutions. As Thomas Ricks discerned, the culture that the Marines most resemble is that of Japan.² The Marines mirror the Japanese in many respects—frugality,³ harmonious intra-cultural relations, a hierarchical social structure, and an emphasis on the group rather than on the individual. Like Japanese culture, Marine culture is a culture of the group, made up of members who are anonymous. These cultures inculcate an acceptance of the needs of the group while repressing individual desires. Both cultures are physically and even psychologically isolated from the larger world. At times, both seem to revel in their separateness. Both cultures inculcate an awareness that everyone

¹ Just how small the Marine Corps is was brought home to the author one morning in the Pentagon. Upon not recognizing a Marine major who had just walked past, a Marine major friend turned and said, "Hmm, I don't know him."

² Thomas E. Ricks, *Making the Corps* (New York: Scribner, 1997), 199–201.

³ The Marine Corps prides itself on making do and using hand-me-down tanks and other items. It prides itself on surviving and thriving on only 6 percent of the Department of Defense budget. As Thomas Ricks noted: "The Marine culture of frugality is brought home to anyone traveling on a Marine aircraft who is offered a Diet Coke—and then asked for fifty cents payment. Outside speakers at a meeting at the Marines' Amphibious School are invited to lunch—and then served a chunk of a Subway sandwich made up of baloney, American cheese, and pickles. Marine infrastructures—barracks, officer housing, day care centers—tends [sic] to be the worst in the U.S. military, giving many Marine facilities an anachronistic feel, with old sinks and cracked tiles in the bathrooms, like an unrenovated pre-World War II high school. [Then Marine Corps Commandant] Al Gray, when asked about improving the "quality of life" of his Marines and their families, famously replied that the best quality of life he knew was actually having a life, so he would put his money into troop training." Ibid., 199.

contributes, from the top to the bottom. Indeed, much more than the other services, Marines place pride and responsibility at the lowest levels of the organization. Marines see the need to have only one officer for 8.8 enlistees. That is a wider ratio than any of the other services. The Air Force, at the other end of the spectrum, has one officer for four enlistees. Some 49 percent of Marines are in the service's three lowest ranks (E-1, E-2, and E-3). This is almost twice the percentage in the other three services.⁴ Because the essence of Marine Corps organization resides on the infantryman, Marine culture sets a high premium on leadership skills in the lower enlisted ranks. Marine units, regardless of the number of casualties to its officers and senior enlisted personnel, will never be without leaders who have full awareness of their responsibilities and who understand that they will be held accountable for the actions of their units. Every Marine believes that the U.S. Marine Corps is more than a crack military organization; to them it is a blood fraternity that obligates every Marine to uphold the honor and tradition of America's only elite service.

There are at least five aspects of Marine Corps culture that influence the development of U.S. strategy. First, partly because of their sense of vulnerability, Marine culture—like Japanese culture—cultivates a sense of candid self-review that makes it more willing to entertain internal and external criticism. Both cultures are concerned not so much with laying blame as with identifying problems. Rather than sweep faults and weakness under the rug, Marines tend to view them as possible threats to the institution.

⁴ Ibid., 19.

This candor is present in all ranks within the Marine Corps. It surprises Army and Air Force officers how honest Marines in the field can be, and even more surprising that Marine officers are willing to let their troops be so candid.⁵ This candor is not restricted to debates within the private confines of the Marine Corps. The *Marine Corps Gazette* consistently publishes the most forceful, name-naming self-criticism of any U.S. military publication. In marked contrast to the Air Force, the Marine Corps encourages its officers to write harsh articles that criticize aspects of their own service. The *Gazette's* willingness to be critical even extends to letting junior officers criticize serving commanders by name in print.

A system of candid self-review results in a continuous learning process in the Marine Corps. The Marine Corps is the most innovative service in terms of examining and testing new operational concepts. Marines are constantly engaged in innovative experiments such as the Hunter Warrior concept that integrates advanced information technology with dispersed rifle squads using other ground and aerial observers and sensors.⁶ The Marine Corps established its Warfighting Laboratory to test the efficacy of new concepts and technologies. In the post-Cold War environment, the Navy finds itself continually reacting to the Marines' energetic strategic thinking and operational innovations.

⁵ Ibid., 192.

⁶ For an assessment of the Hunter Warrior concept by a Marine officer, see John F. Schmitt, "A Critique of the HUNTER WARRIOR Concept, *Marine Corps Gazette* 82, no. 6 (June 1998): 13-19.

Second, the Marine Corps has a balanced view of the role technology plays in strategy. The Marine Corps operates at sea and in air with just one purpose in mind, to support its principal weapons system, the rifleman on the ground.⁷ Consequently, the Marine Corps places more emphasis on increasing its Marines' combat skills than on Marines' equipment. Like the Army, the Marine Corps believes the human dimension of war to be more important than the technological dimension.⁸

The centrality of the human dimension in war means that the Marine Corps is sensitive to the human aspects of war and strategy. Its principle doctrine, FMFM 1: *Warfighting*, emphasizes friction, the chaotic environment of war, the enemy's will to wage war, the need for surprise, and boldness in combat.⁹ Marine Corps officers have a more holistic view of war than Navy and Air Force officers, and tend to be much more aware of factors that may influence war and strategy other than those related to technology or weapons systems. While the Marine Corps has some prescriptive operational doctrine, FMFM 1 is more a philosophy on Marine warfighting than a discussion on operational doctrine. Indeed, FMFM 1 is more a treatise on the nature of war. In a sense, FMFM 1 sums up the writings of Thucydides and Clausewitz on war in terms that a high school graduate can understand. Upon reading it, one also gets the sense

⁷ Ibid., 202.

⁸ See Paul K. Van Ripper and Robert H. Scales, Jr., "Preparing for War in the 21st Century," *Parameters* 27 (Autumn 1997): 4–14.

⁹ U.S. Department of the Navy, FMFM 1: *Warfighting* (Washington, D.C.: Department of the Navy, 1989).

that, of all the services, only the Marine Corps has learned why the United States was defeated in Vietnam.¹⁰

Third, Marines see themselves as modern samurais in the way they look at themselves and in the way they relate to the nation. The Marine Corps has always been remote from the rest of society. Marines devote vast resources to assimilating their members. If it wants to maintain roots in society, the Army has to endure the presence of populist societal values such as fairness, equality, independence, and the rights of an individual in its organization. In contrast, the Marine Corps sees little need to maintain roots in society. Consequently, it feels little compunction in stamping out traits that may detract from its organizational effectiveness. To make the Marine Corps a more effective fighting organization, it inculcates such characteristics as integrity, instant obedience, trust, taking responsibility for one's actions, and loyalty to the Corps and to one's fellow Marine.

Over the last thirty years, however, as American culture has become more fragmented, individualistic, and consumerist, the Marines have become more withdrawn

¹⁰ In the late 1980s, then Commandant of the Marine Corps, General Al Gray introduced a formal reading list, not just for officers but for all ranks. As Ricks noted: "Staff sergeants and first lieutenants, the men who run platoons, were told to read, among other books, [James] Webb's *Fields of Fire*. First sergeants tackled Sun Tzu's *The Art of War*. Captains, who run rifle companies, were assigned Tom Peter's *Thriving on Chaos*. Majors, who typically are mired in staff jobs, had to look at life differently by reading Mao Tse-tung's *On Guerrilla Warfare*, for which the author was listed, in typical Marine style, as "Mao, T.," as if he were one more shavehead recruit. Lieutenant colonels were asked to look at the very big picture: Solzhenitsyn's *August 1914*, Thucydides's *Peloponnesian War*, and Tolstoy's *War and Peace*. Most pointedly, colonels were yanked back to reality by having their noses rubbed in a library of military failure: Neil Sheehan's *Bright and Shining Lie*, about the U.S. war effort in Vietnam; General Giap's *How We Won the War*, a view from the victor's side of that conflict; Paul Kennedy's *Rise and Fall of Great Powers*, about how military spending can undercut national security; and C.S. Forester's undeservedly obscure *The General*, a gloomy meditation on how good but unimaginative officers could lead a generation of British youth to slaughter in World War I." Ricks, 145-146.

from society.¹¹ Like Japanese samurais, the Marines display a sense of disdain for the very society they protect. When looking at America, Marines see a decadent society weakened by laziness and selfishness. Over the last thirty years, the Marines have moved from thinking of themselves as a more wholesome version of American society to a kind of dissenting critique of it.¹² In an open letter to the *Washington Times*, for example, Marine reserve Major Daniel Rabil stated:

Our military's heart and soul can survive lean budgets, but they cannot survive in an America that would tolerate such a character as now occupies the Oval Office.... To subject our services to such debased leadership is nothing less than the collective spit of the entire nation upon our faces. Bill Clinton has always been a moral coward. He has always had contempt for the American military.... Bill Clinton is no longer funny. He is dangerous.¹³

While the Marine Corps may be one of the few parts of the federal government that retains the deep trust of the American people, such vocalized views may engender a distrust of the Corps among society. With their incessant emphasis on honor, courage, and commitment, the Marines may further separate themselves from the society they are to protect and, in doing so, may raise the ire of society.

The Marines' movement toward a new kind of open and active political conservatism should not be viewed as an indicator of where the rest of the military is today, but instead of where it might be heading. With the end of the Cold War, the other

¹¹ Ibid., 22.

¹² For an assessment of Marine Corps' views on American culture and the culture of the Marines, see: George J. Flynn, "Understanding the Gap;" Timothy J. Hiel, "A Historical Perspective on Military Isolation;" John E. Coonradt, "Core Values;" and James B. Woulfe, "Our Leadership Challenge" in *Marine Corps Gazette* 82, no. 9 (September 1998).

¹³ Daniel J. Rabil, "Please, Impeach my Commander in Chief," *Washington Times*, 9 November 1998.

services are becoming more like the Marines—smaller, insular, and expeditionary. Consequently, the U.S. military might come to play a more active role in political decisions and, in doing so, might reawaken American societal suspicions against its professional military.

Fourth, Marines are the least inclined to operate with the other U.S. military services. The deep culture that distinguishes and sustains the Corps also engenders a narrow perspective captured in the Marine aphorism that: “There is a right way, a wrong way, and the Marine way.” The Marine culture and the Marine way of doing things runs so deep that Marines do not readily accommodate elements of other services that are different from their own. During the Korean and Vietnam wars and the Grenada operation, for example, the Marine Corps was reluctant to let the Army use its helicopters. During the Somalia operations in the early 1990s, Army women, accustomed to sleeping in the same barracks as their male counterparts, were upset when the Marine commander overseeing the operation ordered the women to move to segregated sleeping areas. In the same operation, Marine commanders again unthinkingly imposed Marine rules by denying Air Force personnel per diem payments which the airmen had been receiving since the start of the operation.¹⁴

The hesitance of Marines to operate with the other services seems counterintuitive. The Marine Corps, after all, is the only service that operates on land, at sea, and in the air. Consequently, it has a better understanding of the environments in

¹⁴ Ricks, 202–203.

which the other services operate. The Marine Corps, however, operates on the sea and in the air with just one purpose in mind, to support the all-important rifleman on the ground.¹⁵ This is not the same perspective as in the Air Force or the Navy. Even the Army, with its combined-arms approach, does not share the Marines' single-mindedness towards the infantryman. As a result, Marines are reluctant to have representatives from other services command their troops or develop and execute their campaign strategies.¹⁶ They prefer to operate by themselves or in concert with the Navy. Like the Navy, the Marine Corps is reluctant to go outside its ranks and let American defense intellectuals develop and articulate its assumptions and strategic concepts.

The Marine Corps may vocalize its views in strong terms when it sees the military establishment advocate top-down concepts or visions that are supposed to serve as a template to channel the collective efforts of the armed forces. For example, the Marine Corps has been vocal in its opposition to *Joint Vision 2010*. Marines believe that it is overly dependent on technology, misdirected towards high-intensity conflict, and offers a potentially grave strategy-capability mismatch in fighting America's small and limited conflicts such as those conducted in Haiti, Bosnia, and Somalia.¹⁷

¹⁵ Ibid., 202.

¹⁶ Partly because of their experiences in Vietnam, Marines are particularly suspicious of Army operational strategies and tactics. In that conflict, the Marines were discouraged from applying their knowledge of counterinsurgency operations. Despite their vast experience in fighting small wars which are characterized by limited goal and means, the Marines in Vietnam were pushed by General William Westmoreland into waging an attritional, defensive style of warfare.

¹⁷ See Paul K. Van Riper, "More on Innovation and Jointness," *Marine Corps Gazette* 82, no. 3 (March 1998): 55-57.

Fifth, the central element in Marine culture is its abiding sense of vulnerability as an institution. Every Marine is taught from the first few weeks of recruit training that the existence of the Marine Corps is always in danger. The Marine Corps' first experience with inter-service conflict began a fortnight after the Continental Congress resolved on 10 November 1775 that two battalions of "American marines" be raised. Not wanting to lose any troops to the proposed marine battalions, General George Washington was able to convince Congress to draw the battalions from elsewhere, and as a result the two battalions were never formed.

From the American Revolution war until the early part of the twentieth century, there was a running battle between the Navy and the Marine Corps over the following roles of Marines onboard ship (the Navy wanted Marines to work as sailors as well as provide internal security); precedence between officers (the Navy thought that the most junior Navy officer should take precedence over all Marine officers); and who should have authority over Marines on duty at naval stations ashore. As Victor Krulak noted, this running battle contributed greatly to the institutional paranoia so identified with the Corps.¹⁸ Due to adroit political maneuvering, the Marine Corps thwarted President Andrew Jackson's proposal of 1830 to merge with the Army. During the Civil War, two committees in the House of Representative, at the behest of the War Department, again considered then rejected proposals to transfer the Corps to the Army. In 1866, 1867, and

¹⁸ Victor H. Krulak, *First to Fight: An Inside View of the U.S. Marine Corps* (Annapolis, Md.: U.S. Naval Institute, 1884), 7.

1868, proposals sponsored by the administration or the Army to transfer or abolish the Corps were accompanied by stormy debates in Congress.

Between the late 1880s and 1908, the Navy tried to remove the Marines from its ships (although the Navy objected strongly to losing the Corps entirely), and the Army tried with the support of President Theodore Roosevelt to assimilate the Corps. As a result of the Marines' role in World War I and the Army perception that the Marines' contribution had been exaggerated in public accounts, the interwar Army unsuccessfully tried to restrict the Marine Corps to roles onboard ships and to limited operations in support of naval campaigns.

The greatest period of institutional anxiety, however, came during unification of the American armed forces after the Second World War. Caught in the complex currents of the political environment, the Marine Corps found itself up against a strong coalition between the Executive branch, Congress, and the War Department. The coalition wanted to relegate the Corps' amphibious assault mission to the Army, give its aircraft to the newly established Air Force, thereby dismantling the potent air-ground-integrated Fleet Marine Force (FMF) concept, and constrain the Corps' missions to those performed by the Marine Corps of the nineteenth century.¹⁹ Marine planners believed that only legislative protection would save the FMF and, by implication, its own existence.

Due to the successful amphibious landings off Inchon, Korea by American forces in 1950, the laudable performance of Marines in that conflict, and astute Congressional

¹⁹Allan R. Millet, *Semper Fidelis: The History of the U.S. Marine Corps* (New York: Macmillan, 1980), 456–457.

lobbying by Marines and friends of the Corps, the Marine Corps was able to secure its existence. By 1952, the Marine Corps had gained statutory status with a legislated size, legislated roles and missions (which retained the FMF capability), and a legislative partial status for the Commandant of the Marine Corps on the Joint Chiefs of Staff. Moreover, the Marine Corps was designated as the nation's force in readiness to suppress or contain international disturbances short of war.²⁰

As a result of its sense of vulnerability, the Marine Corps came to appreciate the great importance of maintaining the confidence and respect of Congress and the public. It casts a wary eye towards the institutions (i.e., the White House, the Army, and the Navy) that have instigated moves to try to abolish or downsize the Corps. There have been at least fifteen occasions since 1775 when its preservation has been due wholly to a concerned Congress.²¹ The need to seek justification in the eyes of the public prompted the Marine Corps to cultivate deep ties with the press corps. Ricks noted that: "Even second lieutenants at the Basic School are imbued with the importance of public relations: A reporter walking around the campus at Quantico is greeted consistently with lines such as, 'Glad to have you here to tell the Marine story'."²² Every Marine understands the need to promote the Corps and the need to be a walking representative of the Corps. The close ties with Congress and the unabashed desire for publicity have long irritated the

²⁰ Adam B. Seigel, *Who Will Do What With What: Defining U.S. Navy and Marine Corps Roles, Functions, and Missions* (Alexandria, Va.: Center for Naval Analysis, 1993), 14.

²¹ Krulak, 13.

²² Ricks, 198.

other services, who believe efforts to further integrate the services may be circumvented by the Corps and its friends in Congress.

There is, however, another more important aspect to the Marines' paranoia. While it needs an army, navy, and even an air force, the United States does not *need* a Marine Corps—the United States *wants* a Marine Corps. If the country changes its mind, if it thinks the Marine Corps has lost its usefulness to society, the Marine Corps—like any organization in society that has lost its edge—will cease to exist. As a result, Marines are driven by the need to deliver success in combat. The Marine Corps has made itself into a highly responsive, flexible, and adaptable institution. The Marine Corps is continually exploring the future security environment to determine which missions and roles will be important to the United States in the future. It then adapts itself to missions the other services do not want or cannot see, such as amphibious warfare or fighting America's small wars. The history of the Marine Corps is essentially a history of institutional survival and adaptation.

Marine culture is the richest culture in the U.S. military: formalistic, isolated, elitist, with a deep anchor in their own history and mythology.²³ Indeed, the Marine Corps feeds on its history. No other service celebrates its birthday as the biggest event on the calendar. The Air Force has its advanced aircraft; the Navy has its ships; and the Army has its citizen-soldier. However, culture is all the Marines have.²⁴ It is what has held them together along the beaches of Guadalcanal, around the temples of Hue, amongst

²³ Ibid.

²⁴ Ibid., 19.

the remains of a Marine barracks in Beirut, and in Congressional committee rooms. It is what holds Marines together now and will hold the Corps together in the future.

VIII. CONCLUSION

A. CULTURAL SELF-KNOWLEDGE

This analysis suggests that American culture and the cultures of the U.S. military services influence the American process of formulating strategy. If these cultural characteristics are strong, persistent, and ubiquitous, then they should be guides to future events. The United States is likely to perform more effectively in large-scale wars and in wars where absolute victories can be obtained. Planning and execution of a D-Day-style landing, of nuclear deterrence, of an intricate SIOP plan, or of a large-scale conventional war with redundant paths to victory would exploit America's strengths. In short, U.S. military power is a powerful but blunt instrument.¹

The United States may have difficulties in operations, such as those conducted in Bosnia, Haiti, and Somalia, that require subtlety in statecraft and strategy. Success in these kinds of operations requires a level of knowledge of culture, languages, and history that was conspicuously absent in Americas' efforts in Vietnam.² Adopting a direct approach to operations other than war such as conflicts in Bosnia, Haiti, and Somalia may well prove ineffectual. In developing strategies for these kinds of situations, it might be better to view some of the "problems" that characterize such conflicts as merely conditions that must be taken into account. More importantly, these kinds of conflicts in

¹ Colin S. Gray, "Strategy in the Nuclear Age: The United States, 1945-1991," in *The Making of Strategy: Rulers, States, and War*, ed. Williamson Murray, MacGregor Knox, and Alvin Bernstein (Cambridge: Cambridge University Press, 1994), 613.

² During their revolutionary struggle against France and the United States, the North Vietnamese displayed in-depth knowledge of culture and history. See Vo Nguyen Giap and Van Tien Dung, *How We Won the War* (Philadelphia: Recon, 1976).

particular require Americans to acknowledge that the most sophisticated of information technology and precision-guided weapons may not be enough to overcome the will and strategic skills of the enemy.³

The Army may hesitate to adopt RMA-like concepts and technologies. As Korea and Vietnam demonstrated, if the Army has prepared for the wrong kind of war, its failures, much more than the other services, are likely to be prominent. The Army realizes that it can ill-afford to close ranks around a sacred concept. Yet, there may be another reason why the Army may be reluctant to pursue RMA-like technologies. The two fundamental ideas that undergird the culture and operational mind-set of the Army are "seize and hold ground" and "close with and destroy the enemy." Information warfare and precision-guided munitions may obviate the need to "close with the enemy." The promise of delivering munitions with pinpoint accuracy may seem so auspicious as to engender a belief that the nation does not need soldiers, needing only a couple of military police-style regiments to mop up the flotsam and jetsam of a futuristic battlefield. Besides facing situations where doctrine needs to be flexible or where direct approaches to absolute victories may not work, the Army may find its greatest challenge to be convincing others that war is a contest of human wills and not machines and that soldiers will continue to be needed as much in the future as in the past.

³ As Williamson Murray noted: "What matters most in war is what is in the mind of one's adversary, from command post to battlefield point-of-contact. This is a truth well illustrated by a scene from the Gulf War: As a number of U.S. Marine generals stood over a relatively undamaged and well-stocked Iraqi bunker complex that coalition forces had captured with minimum casualties and a large haul of prisoners, one quietly commented: 'Thank God the North Vietnamese weren't here'." Williamson Murray, "Clausewitz Out, Computer In: Military Culture and Technological Hubris," *The National Interest*, no. 48 (Summer 1997): 63-64.

The Navy may have difficulties in developing and implementing its concept of network warfare. Like the introduction of wireless communication, Navy cultural inhibitions against centralization of command may prolong the implementation of a network-centric style of communications as Navy commanders weigh its potential operational advantages against the disadvantages of limiting individual authority. The Navy may hesitate to develop detailed joint operational doctrine that does not accommodate how sailors think operationally.

The Air Force may encounter problems transitioning to a power-projection capability largely comprised of unmanned rockets and missiles. It may find it difficult to develop and sell a cogent and unifying vision of itself to maintain institutional cohesion without alienating the other services. Its preoccupation with effecting futuristic technology-based capabilities may preclude the Air Force from realizing when such capabilities become divorced from the realities of U.S. strategic problems.

The Marine Corps may encounter problems in civil-military relations. The Marines have moved from thinking of themselves as a more wholesome version of American society to a kind of dissenting critique of it. With their incessant emphasis on honor, courage, and commitment, the Marines' movement toward a new kind of open and active political conservatism might reawaken American societal suspicions against the Marine Corps and the rest of the professional military.

American strategists need an understanding of how the services' cultures may influence future strategies. American strategists need to recognize occasions when Army predilections towards adopting a direct approach in conflicts characterized as operations-

other-than-war may prove ineffective. American strategists need to understand when the Navy would be better served by funding more mine-countermeasure ships or fast sea-lift ships instead of more offensive, sea-control platforms. They need to be aware when Air Force tendencies towards piloted attack aircraft may needlessly endanger the lives of U.S. aviators. American strategists need to recognize occasions when the Army may be better suited for operations with coalition forces, even if the Marine Corps volunteers for such missions. Strategists who do not understand the sources of ideas that undergird their military organizations' deeply-rooted preferences may not recognize occasions when the political leaders' goals and the services' strategies may be poorly matched. Such strategists will have a difficult time recognizing when the services' cultures makes some endeavors unimaginable, possible, or desirable.

American strategists should not be content with studying just the cultures of America's potential enemies. Those responsible for developing and executing U.S. strategies need to see America and the U.S. military services through the eyes of the next potential General Giap. As Lao-Tzu wrote: "He who knows others is clever; He who knows himself has discernment."⁴ A strategist who fails to question assumptions cannot be expected to expose strategic vulnerabilities, such as Americas' reliance on technology and machines as solutions for the problems of war. A strategist lacking cultural self-knowledge cannot be expected to take advantage of characteristics that improve the nation's ability to wage war or develop strategy.

⁴ Lao-Tzu, *Tao-te-ching*, trans. T. C. Lau, bk. 1, chap. 33 (n.p., 1963), in *The Columbia Dictionary of Quotations* [CD-ROM] (New York: Columbia University Press, 1993).

B. POLICY IMPLICATIONS AND AREAS FOR FURTHER RESEARCH

The importance of culture is an empirical question. Consequently, further research could contribute greatly to understanding the relationship between American strategy and American culture, and between American strategy and the U.S. military service cultures. Further research on how the services' respective environments shape their respective mind-sets could contribute to a better understanding of the American military institutions. There are at least three avenues for follow-up research.

One might embark on an inquiry into qualifying the differences between the service cultures using the characteristics identified in this study as a guide. Such research could develop and test some of the hypotheses made about the divergent perspectives of the services. For example, how much does a service's operational environment shape the mind-sets of its officers? A study that compares the perspectives of Air Force fighter pilots with those of the Navy and Marine Corps fighter pilots or that compares Army tankers with Marine tankers might determine how much environment shapes the perspectives of military officers. Studies demonstrating that the services' views on command structures and joint operational doctrine are attributable to their respective operating environments raise larger questions of how one might further integrate the efforts of the services. For example, would detailing a few mid-level Army officers to Navy operational staffs (with follow-up orders to Army or Navy doctrine commands) lead to the development of more effective joint command structures and joint operational doctrine? Would assigning a few Army aviation officers to Air Force squadrons improve AirLand Battle Doctrine? Might detailing some Navy officers to Army and Marine Corps

regimental staffs result in an overall appreciation of how naval forces can better enable victory on land?

Military officers gain an appreciation of how officers from the other services think largely through interaction on joint-staff tours and in joint professional military education programs. Unfortunately, interaction in such sterile environments may not convey enough inter-service knowledge and appreciation to improve the ability of the military to fight in a joint manner. Understanding how the other services think from an operational perspective may engender a more holistic approach to war and strategy. Moreover, understanding how the other services think from an operational perspective may lead to an appreciation of when to fight jointly and be more accommodating when geographic, political, or military factors dictate the need *not* to fight jointly. The potential advantages to be gained by examining service cultures from an operational perspective appear to be at least initially too attractive to ignore.

Follow-up research also might be designed to determine if differences in the services' cultures may be used in a constructive manner. Such research could test some of the hypotheses made about the skills engendered by the services' cultures. For example, are Army and Marine Corps officers better strategists than Air Force and Navy officers? Are Navy officers better at understanding the relationship between technology and operations? Are Air Force officers better at envisioning how technology may affect future battlefields? Studies demonstrating that different U.S. military service cultures engender different skills raise larger questions of how the military might use such skills in a constructive manner. Should Army and Marine Corps officers be assigned to particular

strategic billets? Might Navy officers be detailed to joint technical program offices, or Air Force officers be assigned to joint future-concept branches?

The inclusion of cases of non-U.S. military organizations might lead to the ability to identify different typologies in functional areas. In other words, is it likely that all armies will tend to be much more aware of the relationship between policy, strategy, and technology? Will all armies have a passive view of advanced technology? Will armies tend to be more obedient than navies or air forces? Do all air forces inherently display a drive for advanced technology? Are navies more independent-minded than armies or air forces? If it could be established that certain fundamental attitudes are exhibited by certain services regardless of nationality, the United States might be able to exploit such characteristics in areas such as arms control and nuclear non-proliferation. For example, could policies be designed that would keep a rival nation's air force preoccupied with developing advanced piloted aircraft instead of using its resources to construct an unmanned ballistic missile? By offering training and conventional arms that are compatible with their war-fighting culture, can generals or admirals be convinced not to support or provide security for their government's nuclear proliferation projects? The notion that the operating environment engenders a particular mind-set which can be exploited appears to warrant further research.

Further research could investigate the manner and circumstances in which service cultures change, as well as shed light on how to change a military's culture. These issues are important to policymakers interested in changing a service's strategies and weapons systems to ensure a match with their political goals. These issues are particularly

important to policymakers of democratic states in which military values and attitudes should echo and not challenge the principles on which the country is based.⁵ For example, does the U.S. services' relative success in dealing with racism provide lessons for those interested in changing aspects of a service's culture? Why does it seem some services have been more successful than others in racial integration? What do these successes or failures say about the services' ability to address the aspects of its culture that foster sexual harassment? Issues of why service cultures change and how to change them are also important to military leaders interested in making innovative changes that may be antithetical to the services' cultures, or to leaders interested in efforts to keep the military from alienating itself further from the rest of society.

Possibly the most effective manner through which to change aspects of a service's culture is through education. If service members and those who must deal with the services understand why the services behave the way they do, then that behavior is likely to become modified.⁶ If they are told that the folding of one's arms is "body language" that reflects a closed attitude, people will make a conscious effort not to fold their arms in conversation. The awareness and the understanding of behavior may induce change.⁷ If they are told that war at sea engenders a belief in decentralized command structures and descriptive operational doctrine, people will be much more accepting of the divergent

⁵ Elizabeth Kier, *Imagining War: French and British Military Doctrine Between the Wars* (Princeton: Princeton University Press, 1997), 160.

⁶ Carl H. Builder, *The Masks of War: American Military Styles in Strategy and Analysis* (Baltimore: Johns Hopkins University Press, 1989), 205.

⁷ Ibid.

views of Navy officers. If they are told that Air Force officers have a knee-jerk defense mechanism, people will be more sensitive when offering advice or giving constructive criticism.

It is unclear just how helpful studies on American culture and the cultures of the U.S. military services may prove to be. The determined researcher can usually find impressive empirical evidence in identifying which aspects of these cultures influence the U.S. strategy-making process, how these characteristics form, or how they might influence American strategy. It does not seem unduly optimistic, however, to assert the following benefits gained from examining American culture, U.S. military service cultures, and how such cultures influence American strategy:⁸

- An appreciation of the importance of strategy in all its dimensions;
- An appreciation of the need for cultural knowledge and cultural self-knowledge;
- An improved understanding of how such cultures might be shaped; and
- An improved understanding of how such culture can influence strategy, defense preparation, and the conduct of war.

Despite the limitations and problems of using it as an analytical tool, culture is an indispensable guide to the strategist. The paradigm of national or organizational culture can be useful in identifying hidden assumptions behind a defense community's strategy, in understanding the sources of ideas that underlie those assumptions, and in tracing the

⁸ Colin S. Gray, *Nuclear Strategy and National Style* (Lanham, Md.: Hamilton /Abt, 1986), 38.

effects of those assumptions on the behavior of its members.⁹ The study of culture is an inseparable part of war and strategy. It arises as a natural consequence of the uncertainty inherent in planning for and conducting war.

C. THE FUTURE OF AMERICAN STRATEGY

The resurgence of the American military's technical hubris in the form of an information-led "revolution" in military affairs is indicative of the continued lack of self-knowledge among American strategists and a lack of a more holistic perspective on war and strategy.¹⁰ The United States did not need more information at Pearl Harbor, and it is doubtful that it will need more information in the future. What the nation needs is a deeper understanding of the political context of war and of the differing sets of assumptions that U.S. opponents and the United States may bring to it. The United States will require knowledge of foreign languages, religious beliefs, cultures, and histories simply because such knowledge cannot be quantified and measured.¹¹ Many American strategists argue that America's failure in Vietnam stemmed from the absence of sound strategy. But as this thesis has demonstrated, there are deeply-rooted, historically based astrategic American cultural tendencies (e.g., ignorance of and indifference to other

⁹ Yitzhak Klein, "A Theory of Strategic Culture," *Comparative Strategy* 10, no. 1 (1991): 14-15.

¹⁰ As Williamson Murray noted: "One of the most bizarre spectacles of our century has been the predilection for comfortable, middle-class intellectuals to believe that revolution is a 'good' thing." Williamson Murray, "War, Theory, Clausewitz, and Thucydides: The Game May Change But the Rules Remain," *Marine Corps Gazette* 81, no.1 (January 1997): 67.

¹¹ Williamson Murray, "Clausewitz Out, Computer In: Military Culture and Technological Hubris," *The National Interest*, no. 48 (Summer 1997): 63.

cultures as well as American culture, the waging of attritional campaigns with excessive reliance on machine and firepower, and indifference to the exigencies of strategy) that the American strategist needs to understand to forestall a repeat performance of the Vietnam experience or an experience that may threaten the security of the United States. Indeed, the post-Cold War era may not be the first period in history when the achievements of a generation of vigilance may be squandered.

In 1025, the Byzantine Empire found itself more secure than it had been for nearly five hundred years. After nearly four decades of war, the Byzantines had routed the Bulgarians in the Balkans and dictated terms to the Saracen powers in the East. It secured its preeminence as the West's only superpower and was in position to effect the Byzantine epoch. Forty-six years later, however, the empire suffered such a defeat that it never truly recovered as a great power. What had happened between 1025 and the Battle of Manzikert in 1071? Above all else, the politicians and intellectuals in Constantinople became indifferent to the exigencies of strategy.¹²

One may find refuge from the prospect of a downfallen United States in the argument that American strategy, particularly after 1945, has been effective when and where it mattered. Regardless of the strategic challenge, the United States found ways to get the job done. One also might find refuge in the prophetic statements of those undaunted by the idea that pride goes before a fall. As Joseph Nye and William Owens noted:

¹² Colin S. Gray, *War, Peace, and Victory: Strategy and Statecraft for the Next Century* (New York: Simon and Schuster, 1990), 79.

The premature end of what *Time* magazine founder Henry Lane termed the American century has been declared more than once by disciples of decline. In truth, the 21st century, not the twentieth, will turn out to be the period of America's greatest preeminence. Information is the new coin of the international realm, and the United States is better positioned than any other country to multiply the potency of its hard and soft power resources through information.¹³

While the twenty-first century may well turn out as Nye and Owens envision, one might remember that on the eve of its catastrophic defeat at the hands of the Seljuk Turks in 1071, Constantinople possessed not only a geography, a strong navy, and a fortification system that rendered it highly insular, a subtlety in statecraft and strategy surpassed only by the Venetian, Spanish, and British empires, but also an unlimited technical hubris borne from the "Greek fire"¹⁴—a revolutionary weapon system rivaled in the historical record only by the atomic bomb in its ability to shift a strategic calculus. Without fundamental changes in the international system, strategy—like war—will remain an inescapable reality of life in a Hobbesian world. Strategy is a matter of vital importance to the state. It lies in the province of life or death. It lies in the realm of national survival or ruin.

¹³ Joseph S. Nye and William A. Owens, "America's Information Edge," *Foreign Affairs* (March/April 1996): 35.

¹⁴ As Gray noted: "Greek fire, a secret weapon of the imperial Byzantine navy (probably invented by a Syrian architect, Callinicus), played a critical, and possibly even a literally decisive, role in the defeat of the two great Arab sieges of Constantinople in 673–77 and 717–18. The "fire" was a highly combustible mixture of phosphorus and saltpeter which could be discharged from bronze tubes on board ship or delivered by projectile. It could not be extinguished by water. Given the immense strength of Constantinople's landward defenses, the indifferent skills of the Arabs as siege engineers, and the geographical position of the city (roughly a triangle with a landward base and two sea-facing sides), the

significance of a weapon like Greek fire which denied the besiegers the ability to enforce a maritime blockade or press an assault from the sea can hardly be exaggerated." Gray, *War, Peace, and Victory*, 376.

BIBLIOGRAPHY

Ambrose, Stephen E. *Citizen Soldiers: The U.S. Army from the Normandy Beaches to the Bulge to the Surrender of Germany, June 7, 1944–May 7, 1945*. New York: Simon and Schuster, 1997.

_____. *Americans at War*. New York: Berkley, 1998.

Allard, C. Kenneth. *Command, Control, and the Common Defense*. New Haven: Yale University Press, 1990.

Avant, Deborah D. *Political Institutions and Military Change: Lessons from Peripheral Wars*. Ithaca: Cornell University Press, 1994.

Baer, George W. *One Hundred Years of Sea Power: The U.S. Navy, 1890–1990*. Stanford: Stanford University Press, 1994.

Baylis, John and N.J. Rengger. *Dilemmas of World Politics: International Issues in a Changing World*. Oxford, England: Clarendon, 1992.

Baylis, John, Ken Booth, John Garnett, and Phil Williams. *Contemporary Strategy*, Vol. 1, *Theories and Concepts*, 2nd ed., enl. New York: Holmes & Meier, 1987.

Booth, Ken. "American Strategy: The Myths Revisited." In *American Thinking About Peace and War*, ed. Ken Booth and Moorhead Wright. New York: Barnes & Noble, 1978.

Breemer, Jan S. "The End of Naval Strategy: Revolutionary Change and The Future of American Naval Power." *Strategic Review* 22, no. 2 (Spring 1994): 40–53.

Brodie, Bernard. *War and Politics*. New York: Macmillan, 1973.

Builder, Carl A. *The Army in the Strategic Planning Process: Who Shall Bell the Cat?* Santa Monica, Calif: RAND, R-3513-A, April 1987.

_____. *The Masks of War: American Military Styles in Strategy and Analysis*. Baltimore: Johns Hopkins University Press, 1989.

_____. "Roles and Missions: Back to the Future." *Joint Force Quarterly*, no. 3 (Spring 1994): 32–37.

- _____. *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force*. New Brunswick, N.J.: Transaction, 1994.
- _____. "Keeping the Strategic Flame." *Joint Force Quarterly*, no. 14 (Winter 1996-97): 76-84.
- Chilcoat, Richard A. *Strategic Art: The New Discipline for 21st Century Leaders*. Carlisle, Pa.: Strategic Studies Institute, 1995. Available from <http://carlisle-www.army.mil/usassi>; Internet. Accessed 2 October 1997.
- Clausewitz, Carl von. *On War*. ed. and trans. Michael Howard and Peter Paret. Princeton: Princeton University Press, 1976.
- Cohen, Eliot A. "Making Do with Less, Or Coping with Upton's Ghost." Carlisle, Pa.: Strategic Studies Institute, 1995. Available from <http://carlisle-www.army.mil/usassi>; Internet. Accessed 2 October 1997.
- _____. "The Meaning and Future of Air Power." *Orbis* 39, no. 2 (Spring 1995): 34-46.
- Cohen, Eliot A. and John Gooch. *Military Misfortunes: The Anatomy of Failure in War*. New York: Vintage, 1991.
- Demchak, Chris C. *Military Organizations, Complex Machines: Modernization in the U.S. Armed Services*. Ithaca: Cornell University Press, 1991.
- Downey, Frederick M. and Steven Metz. "The American Political Culture and Strategic Planning." *Parameters* (September 1988): 34-42.
- Feaver, Peter D. "The Civil-Military Problematique: Huntington, Janowitz, and the Question of Civilian Control." *Armed Forces & Society* 23, no. 2 (Winter 1996): 149-178.
- FitzSimonds, James R. "The Cultural Challenge of Information Technology." *Naval War College Review* 51, no. 3 (Summer 1998): 9-21.
- Foster, Gregory D. "Research, Writing, and the Mind of the Strategist." *Joint Force Quarterly*, no. 11 (Spring 1996): 111-115.
- Galvin, John R. "What's the Matter with Being a Strategist?" *Parameters* 19, no. 1 (March 1989): 2-12.

- George, Alexander. "The Causal Nexus between Cognitive Beliefs and Decision-Making Behavior: The 'Operational Code' Belief System." In *Psychological Models in International Politics*, ed. Laurence S. Falkowski. Boulder, Colo.: Westview, 1979.
- George, James L. *The U.S. Navy in the 1990s: Alternatives for Action*. Annapolis, Md.: U.S. Naval Institute, 1992.
- Goldman, Emily O. "The US Military in Uncertain Times: Organizations, Ambiguity and Strategic Adjustment." *The Journal of Strategic Studies* 20, no. 2 (June 1997): 41-74.
- Gordon, Michael R. and Bernard E. Trainor. *The Generals' War: The Inside Story of the Conflict in the Gulf*. Boston: Little, Brown, 1995.
- Gray, Colin S. *Strategic Studies: A Critical Assessment*. Westport, Conn.: Greenwood, 1982.
- _____. *Nuclear Strategy and National Style*. Lanham, Md.: Hamilton /Abt, 1986.
- _____. *War, Peace, and Victory: Strategy and Stratecraft for the Next Century*. New York: Simon and Schuster, 1990.
- _____. *Weapons Don't Make War: Politics, Strategy and Military Technology*. Lawrence: University of Kansas Press, 1993.
- _____. "Strategy in the Nuclear Age: The United States, 1945-1991." In *The Making of Strategy: Rulers, States, and War*, ed. Williamson Murray, MacGregor Knox, and Alvin Bernstein. Cambridge: Cambridge University Press, 1994.
- _____. "On Strategic Performance." *Joint Force Quarterly*, no. 10 (Winter 1995-96): 30-36.
- _____. *Explorations in Strategy*. Westport, Conn.: Greenwood, 1996.
- _____. "Defense Planning for the Mystery Four Principles for Guidance in a Period of Nonlinear Change." Available from <http://www.cdsar.af.mil/apj/2sum91.html>; Internet. Accessed 9 November 1997.
- _____. *The American Revolution in Military Affairs: An Interim Assessment*. Occasional Paper no. 28, Camberley, Surrey, England: Strategic and Combat Studies Institute, Joint Services Command and Staff College, 1997.

- _____. "Nuclear Weapons and the Revolution in Military Affairs." In *The Absolute Weapon Revisited: Nuclear Arms and the Emerging International Order*, ed. T.V. Paul, Richard J. Harknett, and James J. Wirtz. Ann Arbor: University of Michigan Press, 1998.
- _____. "RMAs and the Dimensions of Strategy." *Joint Force Quarterly*, no. 17 (Autumn/Winter 1997–1998): 50–54.
- Gray, Colin S. and Roger W. Barnett, eds. *Seapower and Strategy*. Annapolis, Md.: U.S. Naval Institute, 1989.
- Hadley, Arthur T. *The Straw Giant—Triumph and Failure: America's Armed Forces*. New York: Random House, 1986.
- Hagan, Kenneth J. *This Peoples' Navy: The Making of American Sea Power*. New York: The Free Press, 1991.
- Hall, Edward T. *Beyond Culture*. Garden City, N.Y.: Doubleday, 1976.
- Halperin, Morton H. *Bureaucratic Politics and Foreign Policy*. Washington, D.C.: The Brookings Institution, 1974.
- Handel, Michael I. *War, Strategy and Intelligence*. Totowa, N.J.: Frank Cass, 1989.
- Hoffman, F.G. *Decisive Force: The New American Way of War*. Westport, Conn.: Praeger, 1996.
- Huntington, Samuel P. *The Soldier and the State: The Theory and Politics of Civil-Military Relations*. Cambridge: Belknap Press, Harvard University Press, 1957.
- Johnston, Alastair Iain. "Thinking About Strategic Culture." *International Security* 19 (Spring 1995): 32–64.
- Jordan, Amos A., William J. Taylor, Jr., and Lawrence J. Korb. *American National Security: Policy and Process*. Baltimore: Johns Hopkins University Press, 1993.
- Kanter, Arnold. *Defense Politics: A Budgetary Perspective*. Chicago: University of Chicago Press, 1979.
- Kaplan, Fred M. *The Wizards of Armageddon*. New York: Simon and Schuster, 1983.
- Kier, Elizabeth. "Culture and Military Doctrine: France between the Wars." *International Security* 19, no. 4 (Spring 1995): 65–93.

- _____. *Imagining War: French and British Military Doctrine Between the Wars*. Princeton: Princeton University Press, 1997.
- Krepinevich, Andrew F., Jr. *The Army in Viet Nam*. Baltimore: Johns Hopkins University Press, 1986.
- _____. "Cavalry to Computer: The Pattern of Military Revolutions." *The National Interest*, no. 37 (Fall 1994): 30–42.
- Kuhn, Thomas S. *The Structure of Scientific Revolutions*, 2nd ed., enl. Chicago: University of Chicago Press, 1970.
- Lacy, James L. *Within Bounds: The Navy in Postwar American Security Policy*. Alexandria, Va.: Center for Naval Analysis, 1983.
- Legro, Jeffrey W. "Military Culture and Inadvertent Escalation in World War II." *International Security* 18, no. 4 (Spring 1994): 108–142.
- _____. *Cooperation Under Fire: Anglo-German Restraint during World War II*. Ithaca: Cornell University Press, 1995.
- Lovelace, Douglas C., Jr. and Thomas-Durell Young. "Joint Doctrine Development: Overcoming a Legacy." *Joint Force Quarterly*, no. 14 (Winter 1996–97): 94–100.
- Luttwak, Edward N. *On the Meaning of Victory: Essays on Strategy*. New York: Simon and Schuster, 1986.
- _____. *Strategy: The Logic of War and Peace*. Cambridge: Harvard University Press, 1987.
- Katzenstein, Peter J., ed. *The Culture of National Security: Norms and Identity in World Politics*. New York: Columbia University Press, 1996.
- Kennedy, Paul M. *The Rise and Fall of British Naval Mastery*. London: Ashfield, 1976.
- Kenney, Steven H. "Professional Military Education and the Emerging Revolution in Military Affairs." *Airpower Journal* 10, no. 3 (Fall 1996): 50–64.
- Krasner, Stephen D., ed. *International Regimes*. Ithaca: Cornell University Press, 1983.
- Krepinevich, Andrew F. "Cavalry to Computer: The Pattern of Military Revolutions." *The National Interest*, no. 37 (Fall 1994): 30–42.

- Krulak, Victor H. *First to Fight: An Inside View of the U.S. Marine Corps*. Annapolis, Md.: U.S. Naval Institute, 1984.
- Lautenschläger, Karl. "Technology and the Evolution of Naval Warfare." *International Security* 8, no. 2 (Fall 1983): 173–221.
- McMaster, H.R. *Dereliction of Duty: Lyndon Johnson, Robert McNamara, the Joint Chiefs of Staff and the Lies That Led to Vietnam*. New York: HarperCollins, 1997.
- Metz, Stephen and James Kievit. *Strategy and the Revolution in Military Affairs: From Theory to Policy*. Carlisle, Pa.: Strategic Studies Institute, 1995. Available from <http://carlisle-www.army.mil/usassi>; Internet. Accessed 13 Oct 1997.
- Millet, Allan R. *Semper Fidelis: The History of the U.S. Marine Corps*. New York: Macmillan, 1980.
- Moskin, J. Robert. *The U.S. Marine Corps Story*, rev. 3rd ed. Boston: Little, Brown, 1992.
- Murray, Williamson. "Innovation: Past and Future." *Joint Force Quarterly*, no. 12 (Summer 1996): 51–60.
- _____. "War, Theory, Clausewitz, and Thucydides: The Game May Change But the Rules Remain." *Marine Corps Gazette* 81, no.1 (January 1997): 62–69.
- _____. "Clausewitz Out, Computer In: Military Culture and Technological Hubris." *The National Interest*, no. 48 (Summer 1997): 57–64.
- _____. "How Not to Advance Professional Military Education." Review of *Professional Military Education: An Asset for Peace and Progress*, by the Center for Strategic and International Studies. *Strategic Review* (Summer 1997): 73–77.
- Murray, Williamson and Mark Grimsley. "Introduction: On Strategy." In *The Making of Strategy: Rulers, States, and War*, ed. Williamson Murray, MacGregor Knox, and Alvin Bernstein. Cambridge: University of Cambridge Press, 1994.
- Murray, Williamson and Allan R. Millet, eds. *Military Innovation in the Interwar Period*. Cambridge: Cambridge University Press, 1993.
- Pape, Robert A. *Bombing to Win: Air Power and Coercion in War*. Ithaca: Cornell University Press, 1996.

- Pierce, Terry C. "Teaching Elephants to Swim." U.S. Naval Institute *Proceedings* (May 1998): 27-34.
- Posen, Barry. *The Sources of Military Doctrine: France, Germany, and Britain Between the Wars*. Ithaca: Cornell University Press, 1984.
- Ricks, Thomas E. *Making the Corps*. New York: Scribner, 1997.
- Rosen, Stephen Peter. *Winning the Next War: Innovation and the Modern Military*. Ithaca: Cornell University Press, 1991.
- Rosenberg, David Alan. "The Origins of Overkill: Nuclear Weapons and American Strategy, 1945-1960." *International Security* 7, no. 4 (Spring 1983): 3-71.
- _____. "American Naval Strategy in the Era of the Third World War: An Inquiry in the Structure and Process of General War at Sea, 1945-90." In *Naval Power in the Twentieth Century*, ed. N.A.M. Rodger. New York: Macmillan, 1996.
- _____. "Process: The Realities of Formulating Modern Naval Strategy." In *Mahan is Not Enough: The Proceedings of a Conference on the Works of Sir Julian Corbett and Admiral Sir Herbert Richmond*, ed. James Goldrick and John B. Hattendorf. Newport, R.I.: U.S. Naval War College Press, 1993.
- Seigel, Adam B. *Who Will Do What With What: Defining U.S. Navy and Marine Corps Roles, Functions, and Missions*. Alexandria, Va.: Center for Naval Analysis, 1993.
- Shy, John. "The American Military Experience: History and Learning." *The Journal of Interdisciplinary History* 1, no. 2 (Winter 1971): 205-228.
- _____. "The Cultural Approach to the History of War." *Journal of Military History* 57, no. 5 Special Issue (October 1993): 13-25.
- Smith, James M. "Service Cultures, Joint Cultures, and the US Military." *Airman-Scholar* 4, no. 1 (Winter 1998): 3-17.
- _____. *USAF Culture and Cohesion: Building an Air and Space Force for the 21st Century*. USAF Institute for National Security Studies Occasional Paper no. 19. Colorado Springs, Colo.: INSS, 1998.
- _____. "The United States Air Force in the Joint Battlespace: USAF Vision, Joint Vision, and National Strategy." Paper presented at the 1998 Institute for National Security Studies annual meeting, Monterey, Calif.: 6-7 November 1998.

- Smith, Perry McCoy. *The Air Force Plans for Peace, 1943–1945*. Baltimore: Johns Hopkins University Press, 1970.
- Snider, Don M. "The U.S. Military in Transition to Jointness: Surmounting Old Notions of Interservice Rivalry." *Airpower Journal* 10, no. 3 (Fall 1996): 16–27.
- Snyder, Jack L. "The Concept of Strategic Culture: Caveat Emptor." In *Strategic Power: USA/USSR*, ed. Carl G. Jacobson. New York: St. Martin's, 1990.
- Sumida, Jon Tetsuro and David Alan Rosenberg. "Machines, Men, Manufacturing, Management, and Money: The Study of Navies as Complex Organizations and the Transformation of Twentieth Century Naval History." In *Doing Naval History: Essays Toward Improvement*, ed. John B. Hattendorf (Newport, R.I.: U.S. Naval War College, 1995).
- Summers, Harry G., Jr. *On Strategy II: A Critical Analysis of the Gulf War*. New York: Dell, 1992.
- Sun Tzu. *The Art of War*. trans. Samuel B. Griffith. London: Oxford University Press, 1963.
- Thompson, Roger. *Brown Shoes, Black Shoes and Felt Slippers: Parochialism and the Evolution of the Post-War U.S. Navy*. Center for Naval Warfare Studies Strategic Research Department Research Report 5–95. Newport, R.I.: U.S. Naval War College Press, 1995.
- Till, Geoffrey. "Maritime Power and the Twenty-First Century." In *Seapower: Theory and Practice*, ed. Geoffrey Till. Portland, Ore.: Frank Cass, 1994.
- Van Ripper, Paul and Robert H. Scales, Jr. "Preparing for War in the 21st Century." *Parameters* 27 (Autumn 1997): 4–14.
- Weigley, Russell F. *The American War of War: A History of United States Military Strategy and Policy*. Bloomington: Indiana University Press, 1977.
- Worden, Mike. *Rise of the Fighter Generals: The Problem of Air Force Leadership, 1945–1982*. Maxwell, Ala.: Air University Press, 1998.
- Wylie, J.C. *Military Strategy: A General Theory of Power Control*. Westport, Conn.: Greenwood, 1967.

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